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**T**HE value to the soil of the cultivated leguminous plants has long been recognized, and they are now being used extensively, aside from their great feeding value, for adding to the nitrogenous and humous content of the land. The wild plants of this kind, next to the grasses and composites, form a larger part of our native flora than any other family of plants, and since many of them are closely related to the kinds doing best under cultivation it is reasonable to suppose that some of the wild species are of value in the same manner as the cultivated ones. The most valuable use of the wild legumes is in improving soil by means of nitrogen compounds produced in them from the assimilation of free atmospheric nitrogen in the nodules of their roots. For this reason their protein content is unusually high and they also then make most useful feeding stuffs. A few are trees and have valuable wood. Some have very ornamental flowers, while a few are bad weeds or even poisonous.

#### RELATION OF LEGUMINOUS PLANTS TO SOIL FERTILITY

There seems to be an erroneous belief among those not thoroughly conversant with the subject, that a legume will increase the fertility of the soil, by taking up nitrogen from the air, regardless of prevailing conditions and previous treatment of the soil; and that all green manuring crops are legumes. It may be well to explain at the beginning the soil conditions which are necessary in order that legumes may gather nitrogen from the air, and also make a distinction between those green manuring crops which gather atmospheric nitrogen, and those which either consume or only convert the soil nitrogen, or, strictly speaking, the leguminous and non-leguminous green manure. In order that a legume may assimilate nitrogen from the atmosphere, the soil must primarily contain or be inoculated with certain bacteria, whose presence is manifested by the growth of nodules on the roots, through which it is believed that the atmospheric nitrogen is obtained. These germs are usually found abundantly in most well-tilled soils. Any crop may serve as a green manure, but leguminous crops possess a greater value for this purpose than others, because they can obtain certain of their constituents from sources not accessible to all plants. Therefore in order to show the value of legumes as green manure it is necessary here to separate them from other green manuring crops, which instead of increasing the supply of soil nitrogen, actually decrease it.

#### FERTILIZING POWER OF LEGUMINOUS AND NON-LEGUMINOUS PLANTS

The most important legumes available for use as green manures are crimson clover, red clover, cowpeas, and soja beans. They are valuable not only on account of their nitrogen-gathering property, but their period and time of growth make them very convenient crops. The quantity of nitrogen which these crops gather from the air depends largely on the amount of nitrogen stored in the soil, for they will gather at least a part of their nitrogen from the soil in preference to that of air, unless starved of soil nitrogen. Therefore the exact amount of nitrogen which a plant gathers from the air cannot be determined by the content of nitrogen in the plant. But it has been determined by experiment that they do gather nitrogen from the air, and store it in their own tissues; which by decaying allow it to be used by other crops which can obtain this valuable element only from the soil. For this reason they can by judicious growing be made a very potent factor in the economical production

## Leguminous Plants and Their Value

Their Relation to Soil Fertility

BY E. P. WALLS, M. S.



BEGGAR'S TICK



NODULES ON ROOT OF ALFALFA

of the various crops requiring a supply of nitrogen.

The principal non-leguminous green manures are rye, buckwheat and mustard. They do not increase the supply of soil nitrogen, but by their time of growth prevent the loss of this element by leaching, which is very liable to occur if the soil is left naked. They improve the mechanical and physical condition of soils, and conserve the soil nitrogen. But while they retain the supply of nitrogen in the soil, they convert it from the immediately available to the less available organic form. Therefore while the practice of growing these non-leguminous crops as green manures is desirable if wisely followed, it should be remembered that they do not add plant food to the soil, but only increase the organic matter.

#### TUBERCLE-PRODUCING BACTERIA AND METHODS OF SOIL INOCULATION

It has been stated that in order for a legume to utilize the atmospheric nitrogen a certain germ or bacterium must be present on the roots. This germ enters the young roots, and after locating itself, causes a multiplication of the cells around it which produces the tubercles seen on such roots. This mass of cells remains soft and succulent, in comparison with the rest of the roots, and is always sufficiently porous to admit the atmospheric nitrogen, which is abundant in all well-cultivated soils. The exact means by which the atmospheric nitrogen reaches the atmosphere at the disposal of the plant is not thoroughly understood, but it is known that the tubercles are the dwelling places of the germs through which the atmospheric nitrogen reaches the plant. Because of the fact frequently observed that one kind of legume would not produce nodules in soil which abundantly supplied another legume with these growths, it has been supposed that each legume required a special and peculiar nodule organism.

Efforts have been made to distinguish between these bacteria specifically, and separate names have been assigned to the microbes from nodules of peas, beans, clover, etc. Most investigators, however, have been unable to discover any constant difference in the appearance and general characteristics of the bacteria of the various legume nodules, and the results of the most recent research on this question seem to prove that there is only a difference in variety and not in species. Dr. George T. Moore, formerly of the United States Department of Agriculture, Washington, D. C., in laboratory experiments, succeeded in producing nodules on a large number of legumes by inoculation with a single culture. As a result of a great many cross-inoculations, made in every possible combination, Dr. Moore concludes "that it was satisfactorily demonstrated that it is possible to cause the formation of nodules upon practically all legumes no matter what the source of the original organisms."

Nevertheless, it is certainly true that the bacteria seem to adapt themselves to the conditions surrounding the growth of a particular legume. But if these bacteria are absent, how are we to supply them? This is one of the most important items to be considered in the growing of leguminous crops. This process, known as soil inoculation, may be effected by applying the material containing the germs directly to the soil, or by bringing the seed in contact with the inoculation material before planting. Soil from a field where a leguminous plant has been recently and successfully grown, is a good inoculating material for the same plant in a soil destitute of or deficient in the required form of bacterial life.





WILD VETCH

At the Kansas Experiment Station it was found that soja beans would not bear tubercles. They then proceeded to inoculate the Kansas soil with inoculated soil from the Hatch Experiment Station at Amherst, Massachusetts. Of course, only a small area was inoculated at first, and from this more extensive inoculation took pace. Two methods were used; first the finely pulverized, Massachusetts soil was placed directly in the hill; second, water was added to a certain quantity of soil placed in a suitable vessel. The soil was allowed to settle to the bottom, and the water was then drawn off and applied to the plants.

From this experiment it was determined that the best time to inoculate a soil is at the time of planting a crop, and that it is better to inoculate with soil directly than to use the extract. But both methods gave very satisfactory results. This practice was carried on, on a small scale, for several years, and then the soil thus inoculated was used in a drill, as fertilizer, after being finely powdered, and applied at the rate of six hundred pounds per acre. This drilling method is an ideal way of inoculating the soil.

There is a prevailing belief that all leguminous plants increase the fertility of the soil, but there are a few species of this family that do not gather atmospheric nitrogen; therefore they do not increase the fertility except by the addition of humus and by improving the mechanical condition of the soil, which may be said of most plants. It is safe to say that only those legumes increase the fertility of the soil which bear tubercles on the roots, and those plants which do not produce tubercles are not agricultural legumes, although they are properly classed as Leguminosae. Practically all of the wild species that I have examined in Maryland and Delaware have tubercles on the roots, and I think this will hold good in other localities, which goes to show that their specific germ, if any, is widely distributed in the soils, making inoculation in most cases unnecessary, unless with an improved strain of bacteria to increase the yield.

#### COMPARATIVE VALUE OF WILD AND CULTIVATED LEGUMINOUS PLANTS

In considering the use of a leguminous crop on cultivated land one would naturally turn to such cultivated kinds as are already known and adapted to our farms; for example, red clover, crimson clover, alfalfa, cowpeas, vetch, etc. Some of the wild kinds however might prove as valuable under cultivation, at least when the better strains have been selected and improved. But when we consider the large areas of uncultivated lands where no crop is or will be grown under present conditions, the value of the wild legume in building up such and by adding humus and nitrogen becomes much more worthy of consideration, especially if we remember the fact that the most of our waste wood-

land and fields are covered with a natural growth of leguminous plants, doing their work without a particle of labor on the part of the owner. On many thousand acres of waste land over one half of the weed growth is composed of nitrogen-gathering leguminous plants. If by any means these plants can be encouraged to grow on cultivated land their value will be increased.

The rank-growing forms and those richest in nitrogen or which seed themselves most rapidly could be introduced on places where they do not occur, and might soon take the place of useless weeds. A great many of these species grow with the greatest ease on dry, sandy or sterile land where other plants would not succeed until the legumes had opened the way. Some, like partridge pea, rabbit clover, and hop clover, often cover the stubble fields with a spontaneous growth in summer and thus add to their fertility. Bush clovers, the wild clovers, beggar's ticks, etc., form the most valuable part of the wild pasture of the woodlands.

The occurrence of leguminous weeds in cultivated fields is not to be regretted as much as that of many other plants of less value to the soil. The seeds of many leguminous plants, for example, beans and peas, are good food materials; others contain valuable coloring matters and the

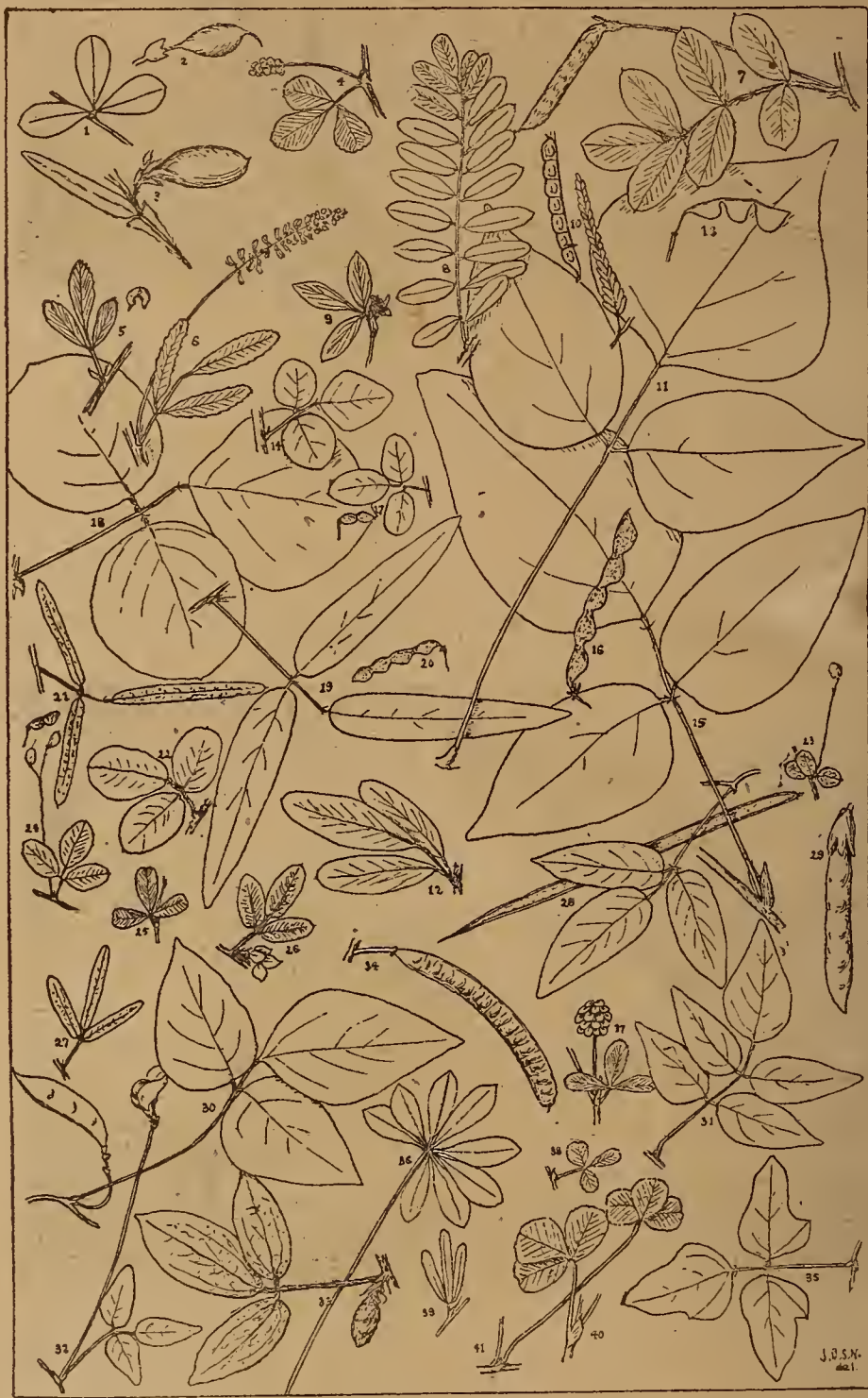
bark of many is exceptionally rich in tannin; some are cultivated for ornament, and a number of other minor uses might be mentioned.

Many things remain to be determined regarding the useful qualities of the wild leguminous plants. The herbage, roots and seed of the different kinds should be subjected to chemical analysis to determine their varied nitrogen content. They should be examined with reference to the presence of a greater or less amount of nodules on the roots. The most promising should be cultivated and improved from year to year by selection of the best for different purposes—hay, pastures, green manuring, seed, etc.

Our wild leguminous plants are distinguished from other plants first by their irregular flowers (usually with ten stamens) which more or less resemble those of the pea and bean, although they may be much smaller, and often clustered in heads, which may be mistaken for a single flower, as in the clover. Exceptions are the cassias, honey locust, and albizzia, which have regular flowers; the last two (trees) and the cassias, are recognized by the finely divided, pinnate leaves and flat bean-like pods.

A second characteristic of legumes is the compound leaves, with three or more

[CONCLUDED ON PAGE 5]



#### Explanation of Plate

The figures are all one half natural size and are nearly all drawn from herbarium specimens.

FROM DRAWING BY J. B. S. NORTON.

- |   |   |
|---|---|
| Figure 1. Leaf of wild indigo                               | Figure 21. Pod and leaf of beggar's tick (Meibomia stricta)                 |
| Figure 2. Pod of same                                       | Figure 22. Leaf of bush clover (Lespedeza hirta)                            |
| Figure 3. Leaf and pod of rattlebox                         | Figure 23. Pod and small leaf of bush clover (Lespedeza procumbens)         |
| Figure 4. Leaf and cluster of pods of black medic           | Figure 24. Leaf and two pods of bush clover (Lespedeza repens)              |
| Figure 5. Leaf and pods of alfalfa                          | Figure 25. Leaf of Japan clover   |
| Figure 6. Leaf and flower cluster of sweet clover           | Figure 26. Leaf and cluster of pods of bush clover (Lespedeza Stuevei)      |
| Figure 7. Leaf and pod of cracca                            | Figure 27. Leaf of bush clover (Lespedeza Virginica)                        |
| Figure 8. Leaf of catgut                                    | Figure 28. Leaf and pod of butterfly pea (Bradyriza)                        |
| Figure 9. Leaf and pod of pencil flower                     | Figure 29. Pod of butterfly pea (Clitoria)                                  |
| Figure 10. Pod and partly folded leaf of joint vetch        | Figure 30. Leaf and pod of hog peanut (Falcata comosa)                      |
| Figure 11. Leaf of beggar's tick (Meibomia grandiflora)     | Figure 31. Leaf of groundnut  |
| Figure 12. Leaf of bush clover (Lespedeza capitata)         | Figure 32. Small leaf and the flower of wild bean (Strophostyles umbellata) |
| Figure 13. Pod of beggar's tick (Meibomia grandiflora)      | Figure 33. Leaf and pod of Dolicholus                                       |
| Figure 14. Small leaf of beggar's tick (Meibomia arenicola) | Figure 34. Pod of wild senna  |
| Figure 15. Leaf of beggar's tick (Meibomia canescens)       | Figure 35. Leaf of wild bean (Strophostyles helvolva)                       |
| Figure 16. Pod of same                                      | Figure 36. Leaf of lupine   |
| Figure 17. Leaf and pod of beggar's tick (Meibomia obtusa)  | Figure 37. Leaf and head of yellow clover                                   |
| Figure 18. Leaf of beggar's tick (Meibomia Michauxii)       | Figure 38. Leaf of hop clover   |
| Figure 19. Leaf of beggar's tick (Meibomia paniculata)      | Figure 39. Leaf of rabbit clover  |
| Figure 20. Pod of same                                      | Figure 40. Leaf of alsike clover  |
|   | Figure 41. Leaf of white clover   |



PARTRIDGE PEA



## Best Crops for Cows

ONE of the queries that come to me this month is from a farmer in Connecticut. He has a farm of sandy soil with gravel subsoil, and is uncertain whether it will pay best to grow corn for dairy cows on it or oats and cowpeas. He could not select two crops that are farther apart in their requirements than oats and cowpeas. Oats succeed best on a soil inclined to be cool and damp, and in a cool climate. Cowpeas are a sun crop. They do well on soil that is warm and dry, and in a hot climate. In the northern states it is next to useless to sow them before the ground gets warm, or after corn planting is done. His soil is better for cowpeas than oats, unless the oats are sown very early, which usually can be done on such soil as his.

He states that there has been no manure applied to this land for six years. Then

up later. By not planting until the fastest growing weeds are well up, and then turning them under, the peas have a chance to cover the ground with a heavy growth before any second crop of weeds can start. Nothing is gained by sowing early while the ground is cold.

## FROM CITY TO FARM

A city-reared man who has just moved on a farm and intends making truck growing and poultry raising a feature of his farming, asks if it would be a good idea to have funds enough to carry him a year,

selves on being something extra along that line. He soon managed to have something to sell about every day in the year, and he said his pocket had silver in it from the first of January to the last of December, and it was always a fresh article. He told me that there was an unceasing demand for fresh eggs and nice cooking chickens, and that he managed to have something that would induce the party wanting something along those lines to part with his money. Sometimes it was one to half a dozen one or two pound

has been breeding up his strain of corn for twenty-five years, and by his success in increasing his crop has demonstrated what is possible to be accomplished by careful attention to details. The average production of corn per acre in Pennsylvania last year was 38.9 bushels. The total farm value of the crop on 1,442,000 acres was \$30,250,000. Mr. Long may have worked no wonders on his farm, but he teaches the farmers of his state and of the nation that they are working on averages entirely too low. Three times the average yield would still allow Mr. Long to keep the lead, but would run the corn wealth of one state up to \$90,000,000 a year. The good seed is planted on good land and the land is kept good and made better by the method of as far as possible feeding back to it all the crops grown upon it. The foundation of the fertility rests in the barnyards. Of course

## All Over the Farm



BROWN SWISS HEIFERS AT PASTURE



FAT STEERS ENJOYING THEIR MORNING DRINK

he need not expect to get much of a crop from it unless it has been in grass and pastured during all or part of that time. If I owned such a farm I would try to get it in red clover as soon as possible. One could get more good dairy cow feed from a clover crop than any other, and if the cows did not require all the crop while green it could be cut for hay, and would make much better feed for them than corn fodder. In seeding I would sow enough timothy with it to hold the clover up. The clover could be mown easier,

instead of relying on the farm for a living and the rent. I think it would. When a man goes into a business he knows little about, it is always well to have a good fund in reserve to draw on in case the new business does not pan out well. A man who moves from the city to a farm has many things to learn, and he must learn most of them by experience. Some people learn quickly, and do things so thoroughly and in such a painstaking manner that they succeed better than many who have been in the business for years. I know a

chickens, at others a large fat one, or a dozen fresh eggs, a few dozen radishes or bunches of celery, parsnips, rhubarb, anything along those lines that was sure to be well grown and to look nice.

FRED GRUNDY.

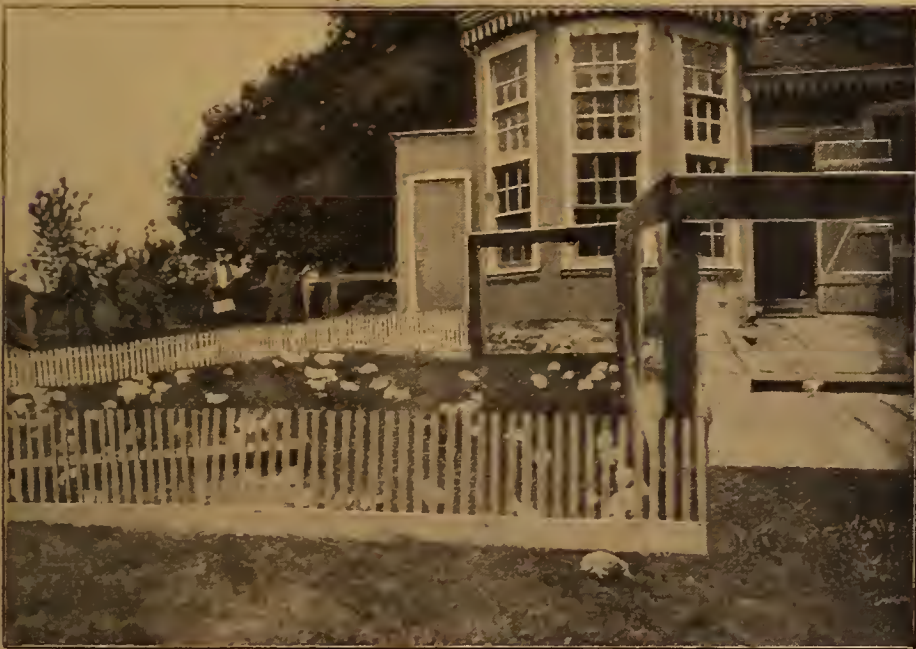
## Business Farming

In Lebanon County, Pa., Mr. I. S. Long, a New York City merchant, owns about five hundred acres of land, embracing three adjoining farms. The land is gently rolling, beautifully located and is in a very

such products as wheat, potatoes and fruits are sold, but the hay, corn and oats are fed and the straw used in bedding the animals.

Mr. Long annually fattens over a hundred head of steers. As these are stall fed from early fall till late spring, enormous quantities of manure are made.

At the farm on which the beautiful summer home is located there is a magnificent herd of pure-bred Brown Swiss dairy cattle, numbering about fifty animals. In one of the photographs is shown a



PARTIAL VIEW OF MR. LONG'S BROODER HOUSE



A YOUNG SWISS BULL

would cure quicker and could be handled easier.

In reply to several queries respecting cowpeas I wish to impress it on the minds of all who have no experience with this crop that it is what is called a sun crop. That is, it must have hot weather to do well. If the seed is sown in cold, wet soil much of it will rot. If it is sown before the soil and weather become real warm the growth will be very slow, and weeds will very likely get the crop. Wait till the weeds are well up, which will be after corn planting time, then turn them under, work the ground down and plant or sow the peas. About a bushel is required to sow one acre, and the price runs from one to two dollars a bushel. Most seedsmen have them for sale. They may be sown broadcast and harrowed in, but I think it is better to drill them in. The best plan we ever tried was to drill them in with a corn planter. If the seed is all good one or two peas in a place about ten inches apart makes a good stand. Set the planter to run rather shallow, drive across the field and straddle the outside row coming back. This will get the rows just about the best distance apart to cover the ground and smother out the weeds that will come

lady who found herself in such straitened circumstances through the rascality of a supposed friend that she was obliged to do something to make a living for herself and child. And instead of "taking in washing" she tackled the poultry problem, as she had thirty hens to begin with. She went at the business so earnestly and with such close attention to details that she made enough to feed and clothe herself and child, buy fuel and pay twenty-five dollars rent on the lot she lived on. The second year she bought the lot, one acre, put up two small poultry houses and otherwise improved the place, and was in a fair way to quite an income when a near relative, who is wealthy, offered her a free home and a good salary as confidential clerk, which she accepted. I know a man who moved out of the city in which he had been born and reared and bought a twenty-five-acre farm and began a truck and poultry raising business. He was so thorough in what he did that he succeeded from the start. He raised vegetables and small fruits of the finest quality, and prepared them for market so attractively that they sold at top prices and quickly. His poultry raising surprised even the natives of the locality, who prided them-

high state of tillable fertility. Each farm has its own farm buildings, and while all are under the personal direction and supervision of the owner, each has its independent management.

There is no effort made in the line of sensational farming. The land was not "worn out," "farmed poor" nor "abandoned" when it came into the possession of Mr. Long, so I have no story to write up of how everything was built up from the lowest conditions. But if nothing very unusual in his farming is claimed for Mr. Long, it may be recorded that he is doing very good farming. He has not tickled old fields with a hoe and made them laugh into a harvest, but by up-to-date, careful farming he has the laughing fields and the abundant harvests.

Mr. Long's great crop is corn, in addition to which he raises oats, wheat, potatoes and hay. His average planting of corn is about one hundred acres, and he complains of poor crops if he does not harvest one hundred and thirty bushels of shelled corn per acre. He has reached this remarkable yield by exhaustively thorough tillage of the land and cultivation of the crop, heavy manuring of the land and scientific selection of seed. He

brooder house with a few of a lot of fifteen hundred chicks, the result of one incubation; another shows a bunch of the beautiful Brown Swiss heifers at pasture; another a few of a superb lot of fat steers enjoying their morning drink; another a young Swiss bull now at the head of Mr. Long's dairy.

W. F. McSPARRAN.

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Get your neighbor to join you when you send in your renewal, if you want to do FARM AND FIRESIDE a favor. Any kindness you may show FARM AND FIRESIDE will be highly appreciated and long remembered.

THE EDITOR.

## About Rural Affairs

BY T. GREINER

## The Parcels Post

PROGRESS is often slow, in fact sometimes discouragingly so for our impatience. But it is also irresistible and irresistible. This, I expect, will soon be discovered by the body of men who call themselves "The Empire State Implement Men's Club," and who at their recent convention in Buffalo, N. Y., voiced their opposition to the parcels post, and resolved to boycott manufacturers who sell to houses that sell from catalogues. In the words of a Buffalo daily, "our friends of the implement trade would do much better for themselves and the people by devoting their convention work to plans to meet the new conditions which have arisen and are to arise in this country, instead of trying to stay the hand of progress to meet out-of-date business methods."

It seems a big job for a comparatively few to attempt, for petty and selfish reasons, to block the onward march of progress and civilization in this respect at this time.

The real rocks in the way of the parcels post just at present are the great express monopolies, but even they will be shoved out of the way. The misdirected efforts of the implement men will prove to be a very small factor in the ultimate result.

## The United States Mail Not a Losing Business

The enemies of the parcels post often use as a knock-out argument the statement that the mail business of the United States is carried on at a loss. Nothing, however, is ever said of the tremendous load that Uncle Sam's mail is made to carry for all the other departments of the government, especially for the members of Congress, and for which services it receives no credit. All the losses of revenue due to the free use of the franking privilege by Congress, by the various United States departments, the experiment stations, etc., should in due justice be charged up to these branches of our governmental machinery as running expenses; and it is manifestly unfair to refuse proper credit to the Post Office Department for all these services that in the aggregate amount to millions of dollars, and represent a very large percentage of the entire business done by the mails. In fact, if this credit is placed where it properly belongs, it will be found that the United States mail, rural free delivery included, is not a losing business, and that the parcels post can be added as a further and material improvement of the service, and to the great convenience of the public, without the least danger of further increasing a deficiency or loss which even now does not exist in fact.

## Horticultural Progress

If you want to know something about the rate of progress we have been making in the horticultural field in this state during the past twenty years, examine the earlier reports of the Western New York Horticultural Society (or in other states those of similar societies), and compare them with the more recent annual reports. The language, the subjects, the scope, everything is different, specialized, modernized, broadened. Then see the crowds that are present at these meetings now, compared with what they were twenty years ago.

Note well the general character of the discussions and of the topics, and the general good understanding which the average member now brings to the more scientific side of his profession, and how he has learned to apply this knowledge to his daily practice.

Twenty-five years ago every fertilizer was known to most of us as either "phosphate" or "guano." Now progressive fruit growers know all about the commercial fertilizers, what they contain, what they are made of, their percentages, what they are worth, and where and how they should be applied. We talk in our meetings as if we were seated in a chemical class room. In our field practices we have made the same progress. We have secured a pretty good idea of how to treat our orchards as to cultivation, trimming, how to spray our trees and vines. In short, with and by the efficient help of the various experiment stations and the Department of Agriculture, the modern horticulturist is in a fair way to work out his own educational salvation. He can do this even with nothing to build on but a fair common-school education, and without even the help of college advantages.

These horticultural meetings, and expert lectures, station bulletins, etc., have been about as valuable to us as a college course. Unfortunately, the vegetable gardener and the common farmer have not had the same educational advantages, and for them agricultural education is yet a burning question to a far greater extent than for the fruit grower.

## PROGRESS BY CO-OPERATION

In the vegetable branch of gardening we have not been without progress. But this progress has been due to some scattered individual efforts, and more largely to outside impulses or factors, chiefly to the introduction of improved varieties by our enterprising seedsmen. In this one respect the progress in this particular line has been even more marked than in fruit growing, especially if we except the strawberry, which in reality is as much a market garden crop as onions or early potatoes. In all or most other respects, however, the producer of garden crops for market or home use has not made progress enough to be worth mentioning. His methods in most cases are practically the same as those of twenty years ago. The main reason for this stagnancy is lack of coöperative effort.

The fruit grower owes his remarkable and rapid advancement to the medium of organization, by force of which the most earnest efforts of the experiment stations and other expert workers were brought to his aid. Every difficulty that the fruit grower meets is at once made the subject of thorough investigation by experts, and remedies are usually soon forthcoming. Thus the fruit-growing industry receives the lion's share of attention by those who are in a position to discover measures of relief. The producer of garden crops will not secure the same degree of attention by stations and the department until he follows the wholesome example of his fruit-growing brethren, and compels such attention by banding together in coöperative efforts. The individual, no matter what his name or fame, carries little weight. The hundreds or thousands organized as "Vegetable Growers' Union," or "Truckers' Coöperative Association," or whatever name they may choose, will command respect, attention and the same aid in their troubles that is now freely given to the fruit-growing fraternities. After such coöperation we may look for more marked progress in this field.

## Spraying with Petroleum

In the last issue of "Country Gentleman" (usually a good adviser and well informed), some one relates his experience with petroleum emulsion and states that he has used it with more satisfactory results than the much-lauded lime-sulphur washes, as a remedy for the San José scale. The editors comment on this with the following remarkable assertions: "We are not quite ready to accept his results as definitive. These emulsions usually not only do not injure but actually appear to benefit the trees at first. It is only after three or four years that their injurious effects are manifest. The first year there is a most gratifying growth; the second this is not so marked; the third it is below the average; while the fourth year the trees are in very poor condition. If Mr. Romaine can show us three years hence that this has not happened, we shall think more favorably of the petroleum emulsion."

I believe that the editors of the esteemed "Country Gentleman" have been jumping at conclusions. Even in case that in one or more instances trees treated with such emulsions have acted as described, it will be hard to prove that this was an after or secondary effect of the applications, and not due to other causes. I will simply state that during the last six years I have given my apple, pear, cherry and plum trees, also currant and gooseberry bushes, two thorough sprayings with crude petroleum in full strength, that this has enabled me to save the trees, etc., from annihilation by the scale, and to restore them to healthy growth, and to harvest good crops of clean fruit, and that I am just getting ready to make another application, thorough almost to the point of soaking, just as soon as the trees are ready to receive it, which is after the buds have already opened, and the first young leaves are already visible. I would not advise anyone, however, to apply clear petroleum on the still dormant wood. I am willing to risk it at the time stated, shall make it any way, and believe I can guarantee my trees to be alive and thriving after this next, the third, application, as they have been after the first and second.

## The Best Fertilizer

A reader in Pemberville, Ohio, sends me a list of several fertilizers, giving analyses, and asks me to tell him "which is the best." I have to answer that that fertilizer is best which serves its purpose best, in other words, which most nearly supplies the needs of the soil on which it is to be used. A fertilizer may be best in one place, and without effect or value in another. For instance, the following analysis is given of a certain "vegetable manure"—Ammonia, 1 to 2 per cent; available phosphoric acid, 8 to 10 per cent; potash (K<sub>2</sub>O), 7 to 8 per cent. That means, the manufacturer guarantees this fertilizer to contain in 100 pounds 1 pound of ammonia (equal to 14.17 pounds nitrogen); 8 pounds of available phosphoric acid, and 7 pounds of potash, or in one ton (2,000 pounds) 20 times 14.17 pounds of nitrogen (worth 16 or 17 cents a pound); 20 times 8 pounds of phosphoric acid (worth 5 cents a pound), and 20 times 7 pounds of potash (worth 4½ or 5 cents a pound). The value would be about as follows:

16½ pounds nitrogen.....	\$2.80
160 pounds phosphoric acid....	8.00
140 pounds potash.....	7.00

Total per ton.....\$17.80

This fertilizer ought to be bought at not over twenty dollars per ton, and if it costs more it is not the "best" fertilizer because not worth its cost. It may give good results where but little nitrogen is needed, or where additional applications of nitrate of soda are made. In short, it is chiefly a mineral manure, and possibly (if cheap enough) just the thing to use in general farming, on lighter soils especially, where a strict clover rotation is practiced, or where alfalfa is grown more or less. Another manure of this kind, and probably good for the same purposes, and perhaps on somewhat heavier soils also, is the following purely mineral "Phosphate with Potash":

ANALYSIS	Per cent
Sol. and Rev. Ph. Acid.....	12 to 14
Equiv. to Bone Phos.....	26 to 31
Total Phos. Acid.....	14 to 16
Equiv. to Bone Phos.....	31 to 35
Potash K <sub>2</sub> O.....	4 to 5

Some reader will ask me, what does all this rigmarole signify? To leave all the "equivs," "sols." and "totals" out, for which the manufacturer alone is responsible, and with which he only befools and befuddles his statements, I may say that the only information conveyed to us by the analysis thus given is the statement that the fertilizer is guaranteed to contain in every hundred pounds twelve pounds of available phosphoric acid and four pounds potash, or in the ton two hundred and forty pounds and eighty pounds, respectively. If this fertilizer can be bought at about eighteen dollars, it may possibly be the "best fertilizer" for the farmer who wants it for general purposes in conjunction with clover rotation. Yet if the land, say a strong clay loam, is already well supplied with potash, even a plain superphosphate, containing about fourteen per cent available phosphoric acid, costing about fourteen dollars per ton, may fill the bill under such circumstances, and then be "the best fertilizer."

## Fish for Fowls

Laying hens, and growing chicks and ducklings, to do their best must have animal food. That seems to be a settled fact. But it is often a problem where to secure the most suitable material of that kind. Fresh bones, with remnants of meat adhering to them, are among the best sources of animal matter for fowls, provided we can either cut them finely, or steam them under pressure so as to soften them sufficiently for use as food. But when I can get waste fish, or fish waste, in sufficient quantity to provide the needed animal food for my fowls, I would surely not look for anything else. I have often been in the position where I could obtain, without expense, all the small or inferior fish, or the fresh fish waste that I could care to feed, and I have always made good use of my opportunities in such cases. It requires but a few minutes' boiling, or steaming, or baking, to convert the strongest smelling fresh fish or fish waste into a palatable food of great nutritive value, and free from every objectionable odor. The best and safest way to serve it to your fowls, undoubtedly, is to mix it into the daily mash. It is easily stirred into and mixed with bran, middlings, oat and corn meals, and no further additions of oil meal and meat meals will be required. I have never noticed any fishy flavor in eggs, no matter how freely and continuously fish thus cooked had been fed. There is plenty of protein yet allowed to go to waste in this fishy material, and it is worth saving.



### The Relation to the Weight of the Kernel and the Size of the Germ in Seed Corn to the Vigor of the Resulting Plant

BY E. P. WALLS, M. S.

THERE has been a diversity of opinion as to whether the vigor of a corn plant is or is not governed in any way by the weight of the kernel or the size of the germ in the kernel from which it grows. This is a very important question. If the lighter kernels or those having small germs produce less vigorous plants we, of course, should eliminate them from our seed corn, for it has been undoubtedly proven by field observations that it is the strongest and largest plants that give us the largest and best ears.

In view of the fact that a question of such great vitality to the grower had not been settled, a series of experiments were conducted at the Maryland Agricultural Experiment Station, College Park, Md., during the spring of 1905, and for those who desire a more detailed account of the experiments than can here be given, reference is made to Bulletin 106 of that station. The object of the experiments was to obtain data from which to deduce a rule of practice in the selection of seed corn, whether we should reject ears bearing kernels of small weight, and small germs, or whether this discrimination is unnecessary. Two separate experiments were conducted, and we will treat each one separately, giving a brief description of the plan of work carried on and the results obtained.

#### EXPERIMENT NO. I.

TO DETERMINE THE RELATION BETWEEN THE WEIGHT OF THE CORN KERNEL AND VIGOR OF THE PLANT

Five grains were taken from each of the forty ears to be planted in breeding plots K2, M2, N2 and R1 at the Maryland Experiment Station, and these were germinated in sand. K2, M2 and N2 are native Maryland varieties in the second generation of their breeding. R1 had only been grown here one year, but had been carefully bred and selected in Illinois for a number of years previous. M2 and N2 are white varieties. K2 and R1 are yellow. There was practically no plant food contained in the sand used as a germinating medium, but by means of this method of germination the plants attained a sufficient height to show a difference in their growing power. Each of the samples of five kernels each, a total of one hundred and sixty samples, was weighed before being placed in the sand, the idea being to see the relation between the size of the kernel, as determined by the weight, and the vigor of the plant.

The germinating boxes were twenty-two inches by twelve inches, and two and one fourth inches deep. These were filled with sand to a depth of two inches, and the kernels were planted two inches apart each way, giving room for the samples from ten ears to each box, making a total of sixteen boxes. The grains were planted and the boxes put in the greenhouse on Thursday, March 9th. They commenced to come up on Wednesday, March 15th, six days after planting.

The average temperature of the greenhouse during this experiment was sixty degrees Fahrenheit; but it was much higher than this at midday.

On weighing the grains from the several lots it was found that while K2 had the smallest grain it was at the same time the heaviest, because it was more of a flinty type than any of the others. R1 gave the lowest average weight, although it had the largest grain, because it is of a pronounced dent type, with a slight inclination to become chaffy. The flinty types of grain are relatively heaviest.

Notes were taken on the several boxes, and the treatment of the plants was as follows: After the first set of notes was taken on March 21st and 22d the germinating boxes received no water until after the second set of notes was taken on March 26th, on which date the water was applied again, and daily thereafter. The last set of notes was taken on April 3d, one week after water had been applied to the boxes again. The object of this was to compare the vitality of the plants under condition of drought, and the last set of notes, bearing the date of April 3d, showed which revived most quickly on having a subsequent supply of moisture.

#### CONCLUSIONS DRAWN FROM NOTES TAKEN

In germinating qualities, M2, the second heaviest grain, stood first. In height of plant, K2 took the lead in the first notes, but after the plants had been deprived of moisture, M2 came first. In regard to vigor, K2 was ahead at first, but the drought diminished the vigor of the plants. At the taking of the second set of notes, R1 had the greatest amount of vigor. This is, of course, an important point to consider, and one point that is in favor of R1 in this respect is that it is more highly bred than any of the other varieties, having been carefully bred and selected by Funk Brothers, of Bloomington, Ill., for six years prior to 1904, when the seed for the breeding plot here was procured from them. The last notes, taken April 3d, show that there are fewer dead plants in M2 than in any other lot.

These facts indicate:

1. That the heaviest grains do not necessarily have the best germinating qualities.
2. That they do attain the greatest height when supplied with moisture, but this need not hold true in time of drought.
3. That they may have more vigor when moisture is abundant, but when the supply of moisture is cut off the plants from the highest bred seed hold their vigor better than any of the others.
4. That the plants from the heaviest grains do not revive most quickly after moisture has been supplied again after drought.

#### EXPERIMENT NO. II.

TO DETERMINE THE RELATION BETWEEN THE SIZE OF THE GERM IN THE CORN KERNEL AND THE VIGOR OF THE RESULTING PLANT

The grains were divided into three classes, according to the size of their germ, namely, large, medium and small. It was endeavored to procure kernels of as near the same size as possible in all three divisions, the variation being only in the size of the germ. All kernels used in this experiment were from the same variety of corn, Munnikhuysen. There were twenty-five kernels in each class, making a total of seventy-five kernels in the test. All the kernels from each of the

## In the Field

plants, by virtue of their high degree of growing force, they are able to overcome this to the greatest extent in the large, next in the medium and least in the small germs.

#### GENERAL CONCLUSIONS

These experiments indicate, and we can almost say prove, that in the selection of seed corn, the following points should be observed:

That there is not only a great difference in the individuality of plants coming from kernels from different ears, but also from kernels of the same ear.

High breeding is of more importance than weight or size of grain. To insure a good stand and a large yield, none but large-germed kernels should be used.

The results of this experiment give us several other points to add to those we already have in the selection of seed corn, and it is impossible to repeat too often that rigid selection is the fundamental basis of successful breeding.

#### Leguminous Plants and their Value

[CONTINUED FROM PAGE 2]

leaflets to each leaf, as in clover, or with many small leaflets arranged like the parts of a feather (pinnate), as in the partridge pea. Sometimes the leaf ends in a tendril (as the vetches), and in the lupine the leaves are arranged as in the clover but five or more leaflets together on the end of the leaf stalk. A peculiar swollen joint is seen at the base of each leaf or leaflet by which they fold up at night, etc. Exceptions in leaf form are the redbud tree, which has a large heart-shaped leaf, and the rattlebox, which has entire leaves having arrow-shaped wings on the stems below each. As a third distinguishing mark, nearly all leguminous plants have more or less pea-like pods which, however, may be short and only one-seeded, as in the case of red clover.

These general characteristics will enable one to tell if the plant is a legume, but will give us no idea as to species. It is to be regretted that space will not permit us to give a key whereby the names of most legumes may be determined. The

impossible to wear out the soil. But after continual planting to corn or growing timothy hay much of the land will not now produce more than twenty-five or thirty bushels of corn per acre.

This farm of which I am writing had been run hard in timothy, and then turned out to pasture, and had been grazed for ten or twelve years.

The piece in which the accompanying illustration of corn was taken was broken in the fall out of blue-grass sod, and the following spring planted to corn, which made about fifty bushels to the acre. In the fall the field was sown to wheat and clover. We let the clover grow two crops, then broke it for corn. Every winter we put on all the barnyard manure made on the place. This, with a crop of clover turned under, produced one of the largest yields per acre in this region.

There are seven acres in the field. One half acre was planted in potatoes, two acres in sorghum and four and one half in corn. We gathered last fall over five hundred bushels of sound, well-matured corn.

We commenced to feed sorghum to the cows, hogs and horses sometimes in August. We had ten hogs, three cows and three horses. With very little other feed we fattened the hogs ready for the butcher, kept the cows in a full flow of milk and the horses fat and sleek.

We grow more feed, of sorghum, per acre than we can on three of corn or oats. We are not satisfied with the yield the past season, although a large one. We will plant to cowpeas and soy beans for two years, and will hog them down on the ground and plow under vines and manure in the fall, and sow in rye for winter cover crop. We will plant the cowpeas and beans in drills about thirty inches apart and cultivate until the vines are large enough to cover the soil. Any weeds that may come up after we stop cultivation will be pulled up by hand. By this method we have very few weeds to contend with.

About fifteen acres of the place are devoted to orchard and small fruit. In the young orchard we rotate cowpeas and garden truck.

Cowpeas and red clover are the greatest soil restorers we have here, and if more farmers would give their attention to cowpeas and red clover they would have richer soil and fatter stock. The cowpeas produce a fine lot of hay, and the roots plowed under gives nearly as good results as when the whole crop is turned under.

We raise a great deal of poultry. They have the run of the place except during fruiting time. The manure they make and the insects they destroy make them a profitable part of the make-up of our place.

We also have a few hives of bees, a very interesting and profitable part of farming.

WESLEY GRIFFIN.

#### Trellising Tomatoes

To those possessing but a limited space for garden purposes, we want to recommend a method of growing tomatoes that is very successful as well as ornamental. A few plants started reasonably early and trained this

way will produce a quantity of this delicious vegetable.

For making the trellises use posts three by three inches and about seven feet long. About two feet from the bottom end of each post, and about fifteen inches apart the entire length, make one by two inch mortises for the cross arms. By notching these so they can be brought to a common level at each set of cross arms they will be like spokes in a wheel. For a hoop to be used for each set of cross arms use No. 9 galvanized wire. Sink this hoop into the ends of the cross arms about one inch, and loop or twist the ends to hold all securely. These cross arms should be about twenty inches or two feet in length.

The posts should be set in the ground about one and one half feet, and should be placed in position before the plants are set out. As the vines grow, keep all the branches within the hoops until the plants reach the top. They can then be allowed to form an overhanging top if desired. Such vines will bear abundantly from the bottom to the top, and the production will usually be large, clean and finely colored.

After the season is past the vines can be removed and the trellises taken up and put away in a dry place for use a number of seasons.

W. A. G.



KENTUCKY CORN—100 BUSHELS PER ACRE

three divisions were planted in one box, so as to give a uniform condition. The mode of germination was the same as in the previous experiment. The kernels were planted and placed in the greenhouse on March 10, 1905, and the kernels commenced to come up on March 17, or seven days after planting. All the kernels in each of the three divisions sprouted, giving twenty-five plants in each. Notes were taken March 22d, March 26th, April 3d and April 14th. Water was applied regularly up to April 3d, after which date no water was applied.

#### CONCLUSIONS DRAWN FROM NOTES TAKEN

The facts as indicated by the notes were:

1. The germinating property of kernels having different sizes of germs may be equal.

2. The kernels having smaller germs may produce plants of a greater height while young, but the plants from the kernels having the larger germs will take the lead as the plants grow older.

3. The plants from kernels having large germs are more vigorous, have more plant energy and are stronger and hardier in every way.

4. The plants from large-germ kernels withstand drought better, and while at the beginning there may be some wilting

idea of this article is to show the value of legumes as soil improvers, and does not deal with the classification. For those who may be interested in this particular, I would refer to the key and catalog of species devised by Prof. J. B. S. Norton, in Bulletin No. 100 of the Maryland Agricultural Experiment Station, College Park, Md. The scheme there laid down is concise and practicable, and while designed especially for such legumes as occur in Maryland, it may be easily modified to fit other localities.

It seems impossible to urge too strongly the growth and encouragement of legumes, either wild or cultivated, on all soils. Nature has provided us with an indefinite supply of nitrogen in the surrounding atmosphere, and has also provided the legumes to make it available. It involves only a very simple calculation to make clear that it is far cheaper to obtain our nitrogen supply from natural sources, and by natural methods, where the cost is practically nothing, than to acquire it by the purchase of commercial fertilizers.

\*

#### Building Up a Run-Down Farm

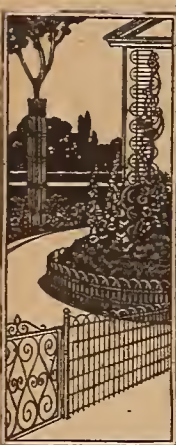
I want to tell of my experiences in building up a run-down farm. Here in the Ohio Valley people used to think it



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## Gardening

T. GREINER

### Package for Marketing Onions

"How are onions marketed, in bags, barrels or crates, and of what capacity?" asks a North Dakota reader. There is hardly a package that may not be found in use for onions somewhere, and often all sorts in the same market. The shipper must be guided by the kind and quantity of onions he has, and by his own convenience as well as by what the market wants. In city commission stores common onions are usually found in barrels, Southern potato onions in bushel baskets, fancy or Spanish onions in crates of about three pecks each, and pickling onions in one-third-bushel baskets. Onions can be marketed in sacks, but stiff packages are undoubtedly better. Prizetaker and other large onions of the Spanish type may bring best returns if sold in crates similar to those in which the genuine "Spanish" onions are imported. And I may again state here that the home-grown Gibraltar onions, and Prizetakers also, are as sweet, as fine, and generally as valuable and enjoyable as the genuine imported "Spanish" onion.

### The Poisonous Cabbage Hairworm

The "ghost of the poisonous cabbage snake" seems to have found its final resting place. At least it has not haunted the pages of the rural and local papers for some time, and nobody has been reported killed by it. It is settled as a fact, on the other hand, that this hairworm is in a sense useful as a parasite on codling moths and several species of destructive grasshoppers or locusts. The bureau of entomology of the United States Department of Agriculture is in a position to give more detailed information on this "cabbage snake" to those who may desire it.

### Moles and Grubs

It is not often that gardeners who have to complain of a superabundance of moles undermining and destroying their garden crops also suffer much loss by cutworm, wireworm and white grub depredations. The moles are after these grubs, etc., and after worms of all kinds, and only incidentally or accidentally, but surely not intentionally, injure or destroy our garden crops. Nevertheless, the tunneling habits of the mole are often very annoying and damaging, so that we are compelled to apply a check to mole activity if we can. Don't imagine, however, that you can do it by a quick and decisive battle. The only device, so far as I know, that promises relief, is persistent and skillful trapping. This may take years of continuous efforts, but will finally lead to comparative freedom from the mole pest, unless the neighbors continue to furnish a steady fresh supply of the burrowing little animals.

### Bitter Turnips

The early summer turnip is quite liable to be of poor quality and flavor. This vegetable thrives best in cool weather, either very early in spring or late in the fall; and it wants fairly good soil that is not deficient in phosphoric acid nor in organic matter. Grow the turnips quickly and free from worms, etc., and you will most likely have them brittle and free from bitterness.

### Hollow Celery

The reader who claims that it does not pay him to raise celery any more because the stalks regularly grow hollow, should try a different strain of seed, and also applications of mineral manures, say wood ashes, or a combination of muriate of potash and superphosphate.

### Fumigation by Hydrocyanic Acid Gas

A reader asks for more information about the use of hydrocyanic acid gas for cleaning a greenhouse of green fly and possibly other pests. We should not forget for a moment that cyanide is a most dangerous article to handle and its indiscriminate use cannot be recommended. When making use of it, or storing a quantity of it, however small, on the premises, we should always know what we are dealing with. Professor Parrot, of the State Experiment Station, recently told me of an instance showing the dangerous character of cyanide of potassium. One of the helpers of the station who was getting ready for fumigating the greenhouses, was breaking a chunk of the cyanide in his hands, striking it with a hammer. A small chip flew to the ground; a rooster happened to be near, and seeing the white

speck fall on the ground, made a grab for it, as fowls will do. He had hardly got it in his bill, when, even before swallowing it, he fell over, with a gurgling sound, stone dead. This drug indeed can kill as quick as lightning. Yet I use it, and with proper precautions have no fear to use it, and I know of no method or device by which I can make a clean sweep in killing greenhouse pests more promptly and certainly than by fumigation with hydrocyanic acid gas. The drug may have to be procured from a wholesale drug house. What you need is cyanide of potassium of ninety-eight per cent purity, and a quantity of ordinary sulphuric acid. On a cold, dark day have the greenhouse closed as tightly as possible. If cold enough, any little cracks between the glass in a butted house will be closed tightly by ice, or the outside of the glass may be sprayed so as to make everything as tight as may be. Then place earthen crocks in a row along the center of house, say twelve to twenty feet apart. Next weigh off as many parcels of one or two ounces of the cyanide (according to width and height of house) as may be needed. Put the water into the crocks, slowly pour into this the sulphuric acid. Carry the parcels of cyanide, each wrapped in paper; leave the door open, and beginning at the further end, drop one parcel into the crock, quickly pass to next crock, dropping in another parcel, and so, with all possible haste, proceed to the exit. Close the door and fasten it so that nobody can enter into this death trap until, after the lapse of two hours or more, the doors, and later on the ventilators, have been opened to allow the escape of every bit of the deadly gas. My little greenhouse is far from being absolutely tight. I use about two ounces of cyanide to every one thousand cubic feet of space. This requires about three ounces of sulphuric acid and a pint or less of water. The effect of the gas on insect life is immediate and I have a perfectly clean house. But while I use this method, I do not yet feel that I can recommend it for general use until we have had more experience with it.

### Muskmelons for Home Use and Market

I want melons in their season for home use. I want plenty of them. I also want the very best in quality that can be grown. When we have fairly rich, warm soil, especially of a somewhat sandy character, we will have little difficulty in producing all the melons that we may need, in fact a full supply for many weeks each season. The standard of quality up to this time is undoubtedly the little Emerald Gem. I have not yet seen anything, old or new, to equal it. Various efforts have been made to breed out, by selection or crossing, some of the faults of this melon, such as its tendency to crack in wet weather, preventing its proper ripening before decay sets in, etc., and to increase it in size. The Paul Rose, a good melon, is one of the results of such efforts. Probably it gives more bulk than the Emerald Gem, but it falls short in point of quality. Between the two I have decided for the Emerald Gem as a melon for my own eating. When it comes to the market, however, the Emerald Gem has serious faults. It is small, many specimens, in fact, too small to be used in this way. It is not the best keeper. On first sight it is not particularly attractive. The Paul Rose and others have come to the front as melons for market, but unfortunately too many of the "others," nice-looking melons, too, have been put on the market that disappoint the buyer and consumer in point of quality. In the Buffalo markets, for instance (and probably in other city markets as well), we find in the early melon season that early trash, Early Prize or something of that sort, that the melon lover buys once, and not again, simply because he does not find his anticipations of a "feast" realized. He was expecting a melon, and he got a thing without flavor and sweetness. One trial may satisfy him for the rest of the season, as he will expect to be fooled again in the same way on the second trial. For that reason the shippers of such early trash are seriously hurting their own market for later and better melons. Last year a few shipments of a melon somewhat resembling the Paul Rose came into the Buffalo markets in that early season, and they proved to be of remarkably high quality, approaching Emerald Gem in that respect. These shipments came from my own county, being grown on the sandy soil of the so-called Ridge which runs parallel with the shores of Lake Ontario, and about eight miles distant from it. Here melons are grown as a regular field crop, and found to be

quite remunerative. I visited the fields of this particular melon on three different occasions, and found it to be a cross between Emerald Gem and one of the larger standard market sorts, showing many of the characteristics of Emerald Gem, but appearing to be far more productive, and the individual fruits large to very large in size. It is a handsome melon, and I believe one that will take well in our markets, satisfying the most discriminating buyer. It is the melon that I shall plant for market exclusively this year, although for home use I shall still have a patch of Emerald Gem. Most of the specimens are deeply netted, flesh of deep salmon color and seed cavity comparatively small. It is now introduced (by Maule) on my special recommendation, and I recommend it at least for trial.

### Melon Blight Treatment

Several readers ask what I would recommend as the best remedy for melon blight, liquid or powder. No powder for me! I use Bordeaux mixture in the regulation liquid form, either made with lime or soda, and I have usually managed to carry my plants through the season with comparatively little loss. But don't imagine that squirting a little Bordeaux mixture over the patch once or twice will surely prevent all trouble in this respect. The only safety lies in keeping the plants well covered with the mixture every day in the season, and this mixture should not be too weak, either, not less than one pound of copper sulphate and one or more of lime to ten gallons of water. In place of the lime I sometimes use one and one fourth pounds of sal soda. And during the period of bug attacks, which is the entire fore part of the season, from June until August, I never fail to add a strong dose of arsenate of lead to the spray mixture, up to half a pound of the paste to ten gallons of the liquid. That means the end of the bugs and beetles, provided the applications are made thoroughly and frequently.

### Bacterial Cabbage Disease

From Prof. William F. Massey I have the following:

"The cabbage disease to which you refer in FARM AND FIRESIDE is one peculiar to the South, and is in North Carolina called 'yellow side.' It is a bacterial disease. I studied it years ago in connection with Mr. Orton, of the department at Washington. We found the cause, but no remedy, except to avoid infected soil and to start plants in soil sterilized by burning, as for a tobacco plant bed. It has not appeared in the early cabbage crops, but shows in July and August. As in case of the tomato blight, liming will give it a temporary check. It is entirely different from the club root and rot that you have."

### Congressional Seed Distribution

The world truly moves. Progress may be slow, but it is also sure. The recent action of the committee on agriculture of the House of Representatives, when it decided, by a close vote, to strike out the \$250,000 appropriation for seeds, came to some of us as a most agreeable surprise. It is, however, only the first step toward the eradication of the arrant old humbug, and the real fight about it in the two houses is yet to come. In these days of immense graft and waste, the question, financially, is of comparatively little importance. But it has always galled me to see this petty and absurd distribution of government pap be made in the name of agriculture, and for the alleged benefit of the American farmer. The end of it is bound to come.

### Selling Through Commission Dealers

In earlier life I have often shipped poultry, fruits, onions and other farm and garden products to two or even three commission houses in the same city, never dreaming that by this course I was only bringing one part of my own produce in competition with the other part. Now, when I have produce to ship, I send it to only a single salesman in the same city, and I stick to that dealer right through as long as I feel sure that he is doing his level best to dispose of my goods to the best advantage, and will make his remittances with even a fair degree of promptness. I shun those men in the commission trade who frequently change their place of business, or their firm names. I like the old, well-established firms, but keep as close watch of them as I can.

Quite often shippers expect too much of their commission dealers. It is only for a No. 1 produce that they can secure top prices. Don't send them second-grade goods, especially on an already oversupplied market. If you do, you should not blame the commission man for making small returns.



## Bone Meal for Strawberries

J. K. D., Tobinport, Ind.—Raw bone meal contains a large amount of nitrogen and phosphoric acid, both of which are very beneficial to strawberry beds. On the other hand, this is a slow-acting fertilizer and if applied in the spring will not be immediately available for the plants. It is, however, an excellent lasting fertilizer.

I am inclined to think that for a bearing strawberry bed, the best thing for you to use would be nitrate of soda, at the rate of about one hundred and fifty pounds per acre, applied first just after the plants have their leaves well expanded in the spring, and again two weeks later. This will give the plants increased vigor and a good start, which is a great help toward making them productive.

## Injury to Foliage from Paris Green

W. B., Akron, Ohio.—Plum trees are quite liable to injury when sprayed with Paris green. The best way to prevent such injury is to use an equal amount of lime with the Paris green. This serves to neutralize any free arsenious acid there may be in the Paris green. The branches of your plums that were killed should be pruned to below the dead wood, or in any event far enough down to leave the tree in good shape.

## Injured Plums

J. S., Lorn, Ind.—I think the chances are that your plums are stung by a little snout beetle soon after they are formed on the tree. This beetle lays its egg in the plum, which soon hatches into a worm that eats about the stone of the fruit and causes it to fall from the tree before it is ripe. It is a common source of loss to plum growers over the whole country, and especially in the section where you are. The best treatment in a small way is not

## Fruit Growing

By S. B. GREEN

ject I would suggest that you get a little book entitled "Grape Training," which treats of the whole subject of pruning grapes. It is published by the Orange Judd Company, New York.

In a general way, however, I might say that the object in pruning grapes is to keep them within bounds, as otherwise they will sprawl over too much surface. Also it is done for the reason that if all the fruits on a grape vine were allowed to mature it would set ten times as much as it could properly ripen. These are the principal reasons for pruning grapes.

The best time for doing this work is during mild days in winter or early in the spring before growth has started. I think there is probably some one in your vicinity who would be glad to give you a little object lesson along this line, which would be far more helpful to you than anything which could be written.

## Young Elm Not Growing

H. K. G., Hawthorn, N. J.—It sometimes happens that when a young elm tree is transplanted it is so checked in growth that it immediately sets large quantities of seeds, which prevents its further growth, and it will continue right along producing large quantities of seed year after year, and make no progress as a tree. This may be the condition of yours. The only other reason I can think of for its not growing is that the soil may be in poor condition. I have occasionally had trees that would trouble me in this way, and have found that I could make them start by digging a hole, perhaps two

the crop is being harvested. In ordinary strawberry raising it is customary to keep the land cultivated throughout the summer with a horse cultivator. This draws the runners into the road and makes a matted road of them, but leaves a path between the rows.

## Cutting Back Peach Trees

G. W. H., Stanley, N. Y.—If peach trees are severely cut back as you suggest doing with yours, cutting them to two feet, they will sprout from the stump and sometime make excellent trees. I would suggest, however, instead of cutting them back to one stump, you cut them back to several branching stubs, each of which shall not be less than two feet long. This practice has been tried on quite a large scale in parts of Missouri, where the trees have been frost injured, with good results, so that I have no fear of recommending it to you.

## Bees Poisoned by Spraying

C. C., Sedalia, Mo.—There is no danger of bees being poisoned by eating fruit blossoms sprayed with Bordeaux mixture, unless Paris green or other poison is put in the Bordeaux mixture. On this account it is not good to spray apple trees while they are in blossom, but wait until the blossoms have fallen, which is just as well as to spray earlier, for the codling moth.

The best remedy for the apple-tree borer is probably to look over the trees in early spring and in August, and dig out the borers. I think it also a good plan to



AN IRRIGATED ORCHARD IN OKLAHOMA

to use poison, for the foliage of plum trees is very susceptible to poisons and is likely to be injured. You had better spread a sheet under the trees and jar the trees, when the beetles will fall to the ground, where they may be easily gathered. The best time to do this work is early in the morning. I am quite sure you can recognize the beetle by the fact that it doubles itself up and remains very quiet when it falls from the tree. It takes but a few minutes to do this to each tree, and if it is begun at the time stated and continued until no more beetles can be gathered, you will have little trouble with them. These beetles winter over in grass, brush and rubbish on the ground near plum orchards, and plum trees that have the soil well cultivated about them so as to leave no place for the beetles, are generally quite free from their injury. Where it is out of the question to cultivate the land it can sometimes be burned over to advantage, and the hiding places of the beetles destroyed.

## Pruning Grapes

E. F., Mound City, Kan.—There are many systems of pruning grapes, and if you are specially interested in this sub-

ject I would suggest that you get a little book entitled "Grape Training," which treats of the whole subject of pruning grapes. It is published by the Orange Judd Company, New York.

## Old Strawberry Bed

W. F. L., Tippecanoe, Ohio.—Where strawberry plants have been grown in such a way as to mat the whole surface of land, it is desirable, if they are thick, to cut out paths in the spring of the year to walk in while the berries are being picked. I think in a small way the best method of doing this is to cut between the rows with a spade, just deep enough to cut off the plants and turn them under. We used to follow this practice of growing them twenty-five years ago, when we did not know as much about horse implements as we do now. On a big scale I would recommend going between the rows with a horse cultivator—set as close as may be, and cutting out a space about a foot wide, which will suffice as a path for the pickers while

paint the trunks and larger branches of apple trees in June with a mixture of lime or cement wash and soft soap. This will not entirely prevent the borers from laying their eggs in the trees, but is a deterrent and will keep many of them away.

## Blue Vitriol Poisonous

G. S., Waynesville, Ohio.—The use of blue vitriol for leaf curl of peaches will not injure the grass that may be under them. For even were the grass of good height the amount of blue vitriol used is so small that it would not be harmful, and as a matter of fact, there is no grass on the land at the time when peach trees should be sprayed for the prevention of this disease, as the operation should be done about two weeks before the buds open.

The small amount of blue vitriol which a horse would get by browsing off the branches or leaves would do him no harm if he ate little else for a whole day.

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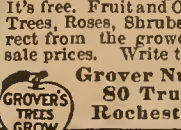
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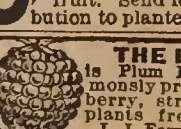
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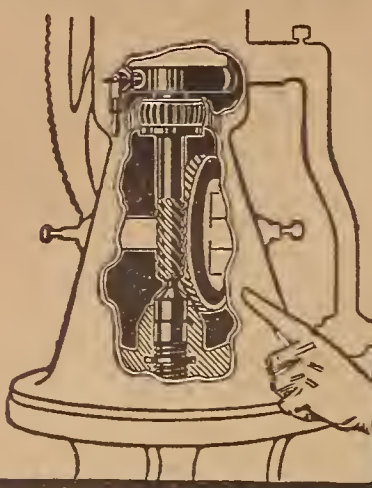
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plain, then, that you want a *simple* cream separator—one with few parts.

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## Live Stock and Dairy

### Without Pasture

THE keeping of a cow is generally associated with extensive pasture, shady dells, running brooks, and such other pastoral settings as go along with the picture. With this picture in mind and not being able or so situated as to assemble so many traditional requisites for the delectation of the cow, many a villager or suburban dweller deprives himself of the pleasure and profit to be derived from a good cow by regarding her as impossible to him; whereas in fact a cow can be well kept on a very small tract of land by what is known as the soiling system. By this method a succession of crops are grown from early spring till late fall, the green fodders being cut daily and carried to the cow in her comfortable stable or small paddock. In such an inclosure she may have pure, refreshing water as constantly before her as though she could take it from the running brook. Here the manure can be all saved and applied directly to the land that shall produce her food. Here she can have air and sunshine and the small amount of physical exercise necessary to maintain a normal operation of her bodily functions.

For such a method of feeding the crops to be grown must be systematically planned and so managed that there be no breaks in the succession. A half acre of land well manured and cultivated will be abundant for the feed of one cow, and the manure from the cow, if properly saved, and the cow has been fed a reasonable amount of mill feed, will supply all the manurial needs of the land. If the keeping of the cow by this system has been under advisement the land to be devoted to her feed may be sown half each to winter wheat and sand vetch and winter rye and vetch. As soon as the land may be worked in the spring half of the rye area should be plowed up and half sown to peas and oats the other half being sown to the same double crop ten days or so later.

Cutting and feeding the rye may begin early—the tenth to the fifteenth of May. The rye will be in good feeding condition till it comes into full blossom, at which time any not fed should be cut and cured for hay for winter feeding. Following the rye and vetch will come wheat and vetch. Wheat not fed green should be cut for hay while the grain is yet in the early milk stage.

As rapidly as the rye and wheat ground is cleared the land should be prepared for planting to early sugar corn, a few rows three feet apart to admit of cultivation; Evergreen sugar corn, a few rows; dent corn, a few rows; sorghum in rows, sown thickly, then more large-growing corn.

Between the last of the green wheat and the first of oats and peas there will be a gap of no crop, during which time lawn clippings and mowings from around fences may be used.

If at the last cultivation of the early sugar corn an eighth of an acre is sown with a seed mixture of crimson clover, red clover, timothy and herd's grass this gap will not occur the next season. This plot, if manured during the winter, should make three good cuttings for either green feeding or for hay.

The first cutting of peas and oats should be planted to sugar corn, a few rows, and the remainder of the peas and oats land sown as fast as cleared to cowpeas mixed with milo maize. Sugar corn and cowpeas plantings can be made up till the fourth of July for the corn and the middle of the month for the peas.

These late crops however, should, by being cut before frost, be depended upon more for cured winter forage than for green feeding.

After the final clearing of all the land in the fall, except that, of course, sown to the clover and grasses, which is for the next season's uses, the land should be made into a fine seed bed, preferably without plowing, and again seeded to wheat and rye with vetch.

The manure made winter and summer should go to the land at once. Seed should be good and used liberally. Tillage and cultivation should be thorough. Weeds should be banished; all the land being constantly employed growing useful crops. The cow should be of the pronounced dairy type giving six thousand pounds or more of five per cent milk. An average winter grain ration for such a cow, in addition to all the good hay she would eat, will be eight to ten pounds of ground corn and oats and wheat bran with two pounds of the ration being linseed oil meal. In addition to her green feeds in summer about four pounds of grains should be given daily.

During the period of rest of a few weeks

previous to becoming fresh, a rest which the good cow, generally considered, should be encouraged to take, the grain feed should be reduced to probably two pounds of wheat bran and one pound of oil meal daily in winter, with only the green feed being given her in summer, should her rest occur at this season. W. F. McSPARRAN.

### Breeding Pigs at a Profit

As regards the breed of pigs which are most profitable to keep, it is first necessary to discover the type or types of animals which best meet the demand of consumers at the present day. This is of primary importance, for it is very certain that no manufacturer or salesman can succeed unless he supplies his customers with the article they fancy. The old-fashioned over-fat, heavy hog of five hundred or six hundred pounds is a thing of the past, although it is true that comparatively lean sows of somewhere around that weight may still be sold at a good figure at certain seasons of the year, when sausages are in keen demand. But generally speaking the public will have either nice, comparatively young pigs of about ninety pounds, pigs which are converted into "porkers" or fat pigs from two hundred to three hundred pounds, and furnishing a considerable proportion of lean meat and as little offal as possible. The present cry is for small joints of the very finest quality meat, from early maturing pigs. Pigs of this latter weight will also meet the requirements of bacon curers. Breeders do not study enough the requirements of the bacon curers as much as they might do, or supply the class of pig which can easily be profitably converted into breakfast bacon and mild cured hams, which are in such great demand everywhere.

The Danes have sent to England agents of experience and judgment to discover what were the requirements of the English market, and what kind of pigs commanded the highest price. Having secured this knowledge, Danish breeders take every possible means to furnish the raw material, with the result that bacon shipped from Denmark is well nigh equal to that produced in England. Now have such practical steps been taken by farmers in this country to meet the requirements of the home market—leaving out of consideration the foreign—although that market is at their doors?

The type of pig now sought after is known to most breeders. The porker above referred to should be compact, of fair length, light in the head and shoulders, deep in the ribs, wide in the loin, and long and deep in the quarters; it should also be fine in the bone, skin and hair, and weigh, when dressed, about sixty to eighty pounds. This weight should be arrived at by the time the pig is at most five months old, but if in four months, so much the better, as the proportion of fat and bone will be less, and the meat be more tender. The main part of the foregoing description will also apply to the bacon curer's pigs, except that the live weight should be about two hundred and twenty pounds, so that a carcass of, say one hundred and sixty pounds, is the result. The length of flank and thickness of flank are of even more importance than in the case of the porker pig. This weight can be obtained in about seven months by keeping well-bred pigs. In comparing the class of pig here recommended with that of thirty years ago, even in those days the sows were long, flat-sided, coarse-boned, lop-eared brutes, who had to pick up a living as best they might, and when cured by the old-fashioned methods were often almost indigestible. And despite the fact that these animals cost little or nothing to keep until it became necessary to fatten them, when that time arrived the fattening process cost more per pound of pork than is the case with the improved type of pig that is required by the market or dealers to-day.

There is no doubt that the most successful pig keeper is the man who breeds his animals from strong, healthy, well-selected parents, and maintained them in a progressive state from birth, until they are turned out fat, at about four to seven months old. Working along these lines it will be found that not only will a smaller quantity of food be needed for each pound of increase but that the pork from the pigs realize a higher price per pound on the market. Experiments have proved that the cost of manufacturing each pound of pork increases with the age of the pig, and the principal reason for this is obvious to all.

W. R. GILBERT.

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## Live Stock and Dairy

### The Farm Feed Mill

A grain mill of some kind should find a place on every farm. It does not cost much, and will save enough in little profits here and there in a short time to pay for itself. A large grinder with an engine would be best for those who can afford it, as it will save much time if you have much to grind, but the average farmer cannot afford this. If you cannot do better, get a horse-sweep grinder, I have used one now for three years and would not like to have to give it up.

With one of these you can grind all kinds of grain, only not as fast as on a power machine. The quality of the feed is just the same. Many have asked me if I could make meal on this kind of a grinder. Yes, I bought the mill especially to crack corn for the chickens, but I make my own meal. The way I manage it is to grind a little coarser, and then sift the meal, leaving the coarse part for the chickens. In this way I save time in the grinding, lose nothing in the end, and possibly get a little nicer grade of meal. I can grind it all fine, but the finer takes more time.

If you will grind oats and corn together, rather fine, you will have something good for the sows and pigs. Every farmer grows corn, and every farmer should grow oats. I think this combination makes a fine feed for whatever ground feed is needed.

The cooking of grain for stock seems to be losing favor. I see that repeated tests prove that there is an actual loss by cooking grain for hogs; but grinding grain is more and more in favor. A hog will get much more out of a bushel on ground corn than whole corn. If the expense of grinding is not too great, it will pay. A hog eats too fast and does not chew the whole grain well enough; but if it is ground fine it is ready for digestion.

These mills will crush the corn and cob as well, and make fine feed for cows and calves. This crushing of the cob does not take much power, and the cob is some good for the cows, as it will increase the bulk.

I believe that the ideal way to feed all

sheep in order that he may keep the new-born lamb from freezing, will have his heart to leap with joy at the selling season.

The grain fed to the ewes that are to raise lambs is not fed in vain, for the strength given to the ewes thereby may not only save them, but their lambs also.

Crowding ewes together at lambing time is sure to result disastrously to the lambs. Several apartments in the sheep shed to inclose the ewes most liable to lamb will prove profitable.

Hogs and lambing ewes are not kept in the same lot with profit. A hog has a mutton tooth, and the little lamb may have to suffer from it.

If you have a mutton-loving dog at your home, you had better have a dog killing, or the dog may have a sheep killing.

W. D. NEALE.

### Care of the Cow

Feed at regular hours. Cows, like people, thrive best when their lives are orderly.

Milk at regular hours.

Brush the udder carefully with a moist cloth before beginning to milk.

Always milk in buckets that have been scalded since the last using. The hot water kills the bacteria that collect in the dents.

Never let the milk pail remain in the stable. Milk rapidly absorbs impurities. These spoil the flavor and cause the milk to sour.

Never scold nor strike the cow. She is a nervous animal, and rough usage checks the milk flow.

C. E. H.

### Saving Liquid Manure

I will give my method of saving liquid manure. My stables have troughs behind the cows to catch the droppings. The troughs are six inches deep and twelve inches wide, made as near water tight as possible. We fill the troughs part full of straw, well trodden in. We clean out our stables morning and evening. The cows are well bedded. In this way we save most of the manure.

Our horses are bedded, when not at



FIRST PRIZE BROWN SWISS BULL

stock is to have all the feed mixed—the grain ground to meal and mixed with the roughage. In this way the whole would be more palatable which means much. The animal gets more out of feed that is palatable.

If the farmer has to raise his feed there is no use in giving a part of it away in having it prepared for use. The farmer can do it as cheaply as anyone. He has his horse and has to feed him, and why not have him at work? I say get a power mill if you can, for this will do the work much quicker; but try to have some kind of a mill on your farm.

E. J. WATERSTRIPE.

### Sheep Shearing

Twenty sheep are enough for a man on a small farm to keep.

Sheep that are raised on scrub brush alone will always be scrubby.

Eternal vigilance is the price the sheep raisers must pay for their early lambs.

The man who can't sleep while the wintry winds sweep, but stays among his

work, in the morning as well as at night, which saves a large amount of liquid manure.

For cattle we sometimes use coarse horse manure in the troughs when straw is not handy.

C. C. H.

### The Dog-Tax Question

On the dog-tax proposition, I beg leave to differ from Kentucky Sheep Raiser. The one dollar tax is all right for one dog, but not for more than one.

For every additional dog let there be a tax of ten dollars, and the money be paid to the assessor, who must keep a record of all money paid in, the number of dogs and the names of the owners. Let him report those who refuse to pay the tax to the county treasurer, who shall, if the tax is not paid within thirty days, notify the constable to kill the dogs.

Everybody who has use for a dog can afford to pay one dollar. Every farmer has need of one dog, but not every one can afford to pay five dollars tax on one dog.

CHRISTIAN KRABILL.

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### TO PROVE ALL THE CLAIMS WE MAKE FOR IT

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We sell direct to you because we are able to give you much better value for your money than we otherwise could, and a better understanding of your machine than any one else could. We always keep in close touch with our customers. They tell us what our Spreaders are doing. Sometimes they surprise even us.

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If you find it exactly as we have represented, after the month's free trial, you can settle for the machine on terms convenient for you.

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Could we do more to prove to you that the American Manure Spreader is what we say? Would we dare to make such an offer if we didn't know what our Spreader will do? Remember—when you deal with us, you are doing business with an independent concern.

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the best protection you can give them. Money spent to this end is good investment, for the increased egg production will repay you with interest. If you want best protection with least possible trouble, do as the owners of the Rosetree Poultry Plant did with the building pictured above—cover it with

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## The Grange

BY MRS. MARY E. LEE

### Graft and Public Conscience

THE revelations of graft and corruption in high places has filled good people with fear that the public conscience is blunted. There is evidence that the public conscience is more tender to-day than ever. For years graft has been conducted in secret, sometimes exposed by good or evil persons, yet it attracted too little attention to mount into a strong wave of public protest. To-day reforms are being worked all along the line. Where there are opportunities for graft the searchlight has been turned on. Public officials have been brought to the bar of public opinion. A healthy sentiment is manifest in the press. We have paid dearly for our indifference. We have pleaded for better roads, schools, better conditions everywhere, and everywhere have we been met with the bugaboo of lack of funds. We have found that enough has gone to enrich the pockets of a few people, dull to a high moral conception of the honor and duty of public trust, to have paved the principal roads or maintained a splendid system of schools.

Public conscience is thoroughly awake. The people themselves are largely to blame for the bad conditions. When charges were made against an official it was laid to partisanship or personal feeling. We troubled not to inquire whether they were true or false. Not till the evil became so glaring that it could not be ignored did we act. Will we sleep again? Will the waking be but for a moment? History repeats itself. Waves of reform ebb and flow. Justice and right are beclouded. In the end they prevail. Good alone is permanent and has predestined sway. A part of the public may forget, but God posts sentinels whose fires dim not night or day. When the time is ripe, when nature's laws of growth have been satisfied, then the beacon light flames high. It bursts into millions of iridescent points that light the way to truth and righteousness.

### The Bond Amendment

All other matters pale into insignificance in the minds of the great common people by the side of the iniquitous trick that was played by the promoters of the amendment to the constitution which exempted bonds from bearing their just share of the burden of government. The argument that they were not on the tax duplicate is specious. They should have been. That they sell for a lower rate of interest is false. Bonds are selling to-day for as high a rate and as low a premium as before the exemption. It was a scheme to enrich the pockets of a few who could purchase. It has done more to build up class hatred in Ohio than any other measure. It is vicious in principle and criminal in policy. Put the bonds on the tax duplicate the same as tangible property. It is claimed that if bonds are taxed they will need to be sold at a higher rate of interest to pay the tax and that it is a case of robbing Peter to pay Paul. If so, then no harm can come to the unit issuing such bonds, as the increased rate is returned to the unit. Nor is the county and state tax depleted, as in the case of exemption. It is of no interest to the small towns and country that Cleveland, or Cincinnati, or Columbus, or any of the larger cities shall get a lower tax rate if these other units must come up on the county and state tax. It is no interest to Cleveland, Cincinnati or Columbus that Athens County can float bonds at a lower rate of interest for building pikes if they have to come up on their state and county tax. The main argument has been that the bonds were not on the duplicate. Why in the name of justice does anyone want to legalize a fraud? Why make terms with it? Why not make a square stand for honesty and efficiency and honor?

### Resubmission of Bond Amendment

At this writing it seems sure that the bond amendment will be resubmitted to the voters. Never has there been a greater tribute to the grange than in this matter. The General Assembly manifests a desire to be just and to make a record for itself. The desire to resubmit is practically unanimous. It was not so at the first. It was a great undertaking, as those who worked for it well knew, with powerful influences against it.

Quietly and persistently State Master Derthick worked, presenting arguments that were unassailable. Then the petitions and letters poured in by the hundreds and it was noised around that a great wave of public opinion was rushing forward for

justice. The General Assembly shows a spirit of fairness. I hope that at the next writing it can be announced that the work so well performed will bear abundant harvest. The Harper bill has been reported from the judiciary committee unanimously, and we are promised an almost unanimous support on the floor.

State Master Derthick has proven a fearless and a peerless leader. Not once has he resorted to aught but quiet argument and presentation of matters. Said one of the leaders, "You can go to any member in the General Assembly, before any committee, and will receive recognition. You, sir, have won what few other men have, a reputation for such absolute fairness and disinterestedness, and such respect for the justice of your position, that you are welcome everywhere."

Mr. Derthick was invited to address various committees on matters of public good. The grange has done nobly. It has a safe and strong leader who has made friends for it in every instance. "The grange has great influence because it asks for justice only," said one of the members.

Whether the battle is won or not, the grange has won. It has won the respect of city and town. Its leader has that tact which enables him to reach men. His logic is unanswerable. The grange has worked hard. Men and women have traveled over entire counties to enlist the support of those who favored resubmission of the bond amendment to the voters. Those who worked the hardest are the better and stronger for it. And the grange itself has entered on a new era of usefulness and power. It is determined to study more deeply the great public questions before the people and to be ready to act with wisdom.

### The Observatory

Rejoice over the pure food law, but forget not to work harder than before for the parcels post. Everyone concedes the justice of the parcels post save the express companies and a few country merchants. Write to your congressmen and senators and show them the people are thoroughly in earnest. Dairy and Food Commissioner Ankeny has run down one of the most infamous frauds. A certain pill is placed on the market as a castor oil remedy. Analysis shows not a trace of castor oil, but in its stead croton oil; yet the manufacturers recommend three or four for children. Another Herod in deadly disguise slaughtering the innocents.

### Co-operation

"We purpose buying together." This part of our coöperation has been one of the helps and also one of the hindrances of our order. The student of the causes of the failures along this line finds that they were brought about by departures from the true and straight path of business coöperation, and not through any fault in the principle itself.

Years ago the National Grange sent an accredited commissioner to England to make a study of the Rochdale system of coöperation, so long a success in a business way among the laboring classes of England. The knowledge thus obtained was sent out by the National Grange, and has resulted in striking and happy illustrations of success, one of the most notable being that of the Grange Coöperative Association with its central business plant at Olathe, Kansas, in a building which cost sixty thousand dollars, with branch homes located in several counties. Its success for more than a quarter of a century proves the success of the true principles of coöperative business in "buying together," and other instances might be given. Michigan patrons this year by "buying together," used over four hundred tons of binder twine. A single subordinate grange in New Jersey last year reports purchasing "together" to an amount of over thirty-six thousand dollars. "There's millions in it" every year for our members, as they learn how to do it.

We purpose "selling together." This line of coöperation has proved a more knotty problem, yet substantial and gratifying progress is being made: in fact, it may now truthfully be said that the grange has led on in this important work until it has more than passed the experimental stage.

"We purpose—in general, acting together, as occasions may require." This opens up all the great field of local, state, national and, we may now truthfully say, international grange work.—From report of National Committee on Coöperation.



## INVESTIGATE THE POULTRY BUSINESS



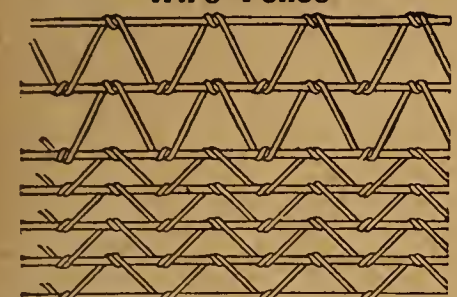
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that keeps stock out of your poultry yard, stands up stiff on few posts and requires no top rail or bottom board, is our specialty. You can't afford to buy poultry fencing without knowing more about the PAGE. Write us.  
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## GOOD POSITIONS

as salesmen now open in every state. Experience unnecessary if hustler. Steady work, good pay and promotion. Apply at once to Morotock Tobacco Works, Box D-84, Danville, Va.

## Poultry Raising

By P. H. JACOBS

### Bantams

ONE of the best gifts to a boy or girl at this season is a trio of bantams. The little beauties will not only be appreciated, but will be an ornament, and are not unprofitable to keep, and being hardy and easily reared, are excellent layers, and afford a good proportion of meat for the amount of food consumed. The hens are usually good sitters, and make the best mothers.

There are many varieties, most of them being simply a miniature of the larger breeds. The recognized varieties are the several games, Sebrights, Rose-combed Whites, Rose-combed Blacks, Pekins, Japanese, Polish, Cochins, etc. Of the Games there are several varieties.

Silver Sebright Bantams are one of the oldest breeds we have, as they were introduced into this country about the year 1800 by John Sebright, hence their name. They were produced by a cross between the common Bantams and the Polish fowls. The cock has a very majestic strut and proud carriage, and when perfectly feathered is particularly handsome. The tail is, however, peculiarly short and hen-shaped.

There is also a Golden-Sebright variety. The White-crested Black Polish are beauties, have large beautiful crests and are much admired.

### Beauty of Plumage

A flock of hens produces profits from several sources. Eggs, meat, feathers and manure may be considered things of value, and success depends upon the object in view, the location and the management. So far as the breeds contribute to the results, it has been fully demonstrated by poultrymen that the production of eggs and meat has been greatly increased by the introduction of many of the pure breeds, and that common fowls have been greatly improved by crossing.

Passing over these points, there are some who simply wish to breed fancy fowls for their beauty, as it is a pleasure for them to see a handsome lot of fowls in the barnyard or on their lawn. In selecting breeds for such purpose one must sometimes sacrifice utility for fancy. There are breeds, however, that combine beauty with egg production. There can be no fault found with our well-known Plymouth Rocks, Brahmas, Leghorns and Wyandottes, so far as beauty of plumage is concerned, and they are also capable of giving satisfaction in producing eggs and meat. The pure breeds are being improved every year and the egg records are higher than formerly.

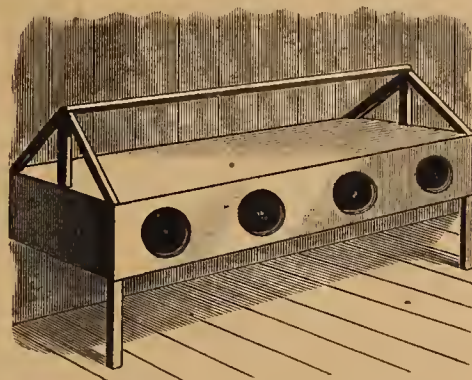
### Disappointments with Breeds

There are those interested in poultry who are constantly on the lookout for the best breed. Just as soon as the record of some particular flock is made in public there is at once a demand for eggs from the hens composing the flock. There is no consideration given the conditions necessary for success. The Hamburgs may justly be set down near the top of the list as layers, and close to them may be placed the Red Caps and Polish, but these breeds cannot be made to give satisfactory results except with more care and attention than the farmer is willing to bestow upon other flocks. They are tender, and cannot endure the severe winters of some portions of this country, in comparison with some other breeds, and the extra number of eggs that they might produce in a year would not compensate for the extra labor required in their care. The rare breeds are inbred, lack vigor, and can be made profitable only in the hands of experienced fanciers. Disappointments with pure breeds is often due to the management. The farmer procures pure-bred fowls, and turns them loose with a lot of mongrels. No harm would result if the common fowls were well treated, but the farmer relies too much in winter upon the ability of the birds to secure the larger share of their food by picking over the refuse of cattle or by working in the manure heap. The pure breeds will, of course, do as well as the mongrels under such conditions, but the result will not be satisfactory, as the farmer will compare them with the mongrels and expect something better from them, when it is not within their power to do more than provide warmth for their bodies. All birds must have varied foods, rich in protein, in order to provide eggs, and when the farmer overlooks providing the proper conditions he removes the opportunity for making a profit. The farmer who experiments will learn that the best breed for him is the

one that consists of hardy birds, which have but few, if any, sick ones, and which will be satisfied with their surroundings. Such birds, no matter to which breed they belong, will not prove disappointing, and yet they may not be so suitable on an adjoining farm and with another manager. As to the breeds mentioned, it is doubtful if even the Plymouth Rocks can claim an advantage over them. They are now rare, being bred by but few breeders, having been superseded by the Plymouth Rocks.

### Nests for Egg Eaters

The illustration is intended to show an excellent arrangement to prevent the eating of eggs by laying hens. The nests are raised one foot from the floor, the space under the nests being utilized as a portion of the floor. The roost is placed over a platform on the nests. The hens



cannot reach the eggs from the floor, and if the nests are only twelve inches high they cannot stand up in them to eat the eggs. The darker the interior of the nests, the better. This arrangement gives the fowls the whole of the space on the floor.

### Improving the Quality

It has become a profitable business to buy fowls in coops in the cities, mostly from commission merchants, fatten them, and sell at high prices. It requires about two weeks to fatten them, according to the condition of the fowls. The fowls are first rid of lice with the aid of lice killers, as a lousy bird will not thrive. They are fed on ground grain, moistened with skim milk, and a little animal meal added. Large chicks are also made fat before being marketed, if it can be done quickly. It does not follow that because a fowl seems of good size and is nicely grown, it is marketable. The three-month-old chicken may have a big frame, and the making of a good table bird, but unless it carries flesh only disappointment will accrue when the account for sales comes in. The most certain way of fattening the young chicks is to shut them up in properly constructed coops, for from twelve to fifteen days, and feed them every three hours, the earlier in the morning the first meal is given the better. Their diet should consist of buckwheat meal or corn meal mixed with milk to the consistency of crumbly dough, and a little mutton suet and animal meal can be added with advantage.

### Popularity of Orpingtons

"Some one asks," says the "American Poultry Journal," "Why are the Orpingtons so popular? They have a solid foundation to build popularity on, in the first place; and, secondly, have been boomed into favor by enthusiastic fanciers and breeders."

### "Straw" Color on White Birds

The "straw" color, noticed on Light Brahmas and some other white breeds causes much annoyance to those who enjoy the pure white of the plumage. The "straw" color gets deeper as the bird approaches the molting period, and when the new feathers appear they are very white and free from "straw," but as the months roll around the tinge again deepens. It does not indicate impurity, as it may happen in the best of flocks. It is believed by some that it results from some Buff Cochin ancestor of generations back, but exposure to the sun is probably the cause. There is no remedy for straw color that will give permanent results, but breeders who desire to show white birds find that by keeping their birds in the shade the straw color is less pronounced. Young birds do not show the "straw" so plainly as do the old birds, it seeming to be the result of long exposure to the sun, as the old feathers are much deeper in the "straw" color than new ones.



## Mark Them

If you will separate the young chicks, and to one lot feed Dr. Hess Poultry Pan-a-ce-a regularly as directed, you will find that they will make a remarkable gain in growth over a similar number that do not receive the Pan-a-ce-a, and besides the Pan-a-ce-a will prevent loss from disease. Dr. Hess Poultry Pan-a-ce-a cures gapes, cholera, roup, indigestion, leg weakness and all poultry diseases due to digestive troubles or infection. Poultry Pan-a-ce-a positively destroys the germs of disease, besides increasing the digestive powers so that the maximum amount of the food is converted into bone, muscle, feathers, eggs.

## DR. HESS Poultry PAN-A-CE-A

is the prescription of Dr. Hess (M. D., D. V. S.) and makes the young grow fast, healthy and strong. It has the endorsement of leading poultry associations in the United States and Canada. Costs but a penny a day for about 80 fowls and is sold on a written guarantee. Destroy poultry lice by sprinkling your hens and nests with Instant Louse Killer; it is also a reliable disinfectant and deodorizer.

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5 lbs. 60c.  
12 lbs. \$1.25.  
25 lb. Pail, \$2.50.  
Send 2 cents for Dr. Hess 48-page Poultry Book, free.

**DR. HESS & CLARK,**  
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Instant Louse Killer Kills Lice.



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## Raising Sugar Beets

**I**N THE year of 1905 the sugar factory was erected at Owosso, Mich. Before that the growth and culture of sugar beets was practically unknown in this part of the country. The first year my brother and I planted a small field. We planted them on a level piece of black clay loam, in rows twenty-two inches apart. We drilled them in with a two-horse drill to the depth of about one inch, being careful to see that all the seed was being covered so as to avoid any skips in the row.

After the field had been planted about four days there came a heavy rain which formed a crust that would hinder the beets from breaking through. As soon as it was dry I took a light drag and dragged the field over across the rows. This served for two things, to break the crust and to destroy the small weeds which were beginning to make their appearance.

As soon as the beets were well out of the ground and had four leaves I commenced blocking and thinning. I left a single beet about every eight inches. After weeding and thinning the beets came on rapidly, so I continued cultivating them often, having gone over them once previous to the blocking. When the beets got so large that the leaves covered the space between the rows, I went through them with the hoe and took out all the weeds. This insured a clean crop and was better for the beets.

When the leaves began to turn yellow I began to harvest them. After they were lifted, I took about eight rows and slung them into heaps. This knocked the dirt off better and at the same time made the topping easier. In topping the whole top down below the lowest leaf should be cut off, for if any is left the factory tares man will take it off for you and deduct that much per cent from your entire load.

In spite of the wet weather and its being our first attempt at raising beets, we did as well as the average, although about one third drowned out.

This past year on account of the extremely backward spring I did not plant mine until the twentieth of June, and on account of the wet weather hoed them through three times, besides the other cultivating. I got an average of about ten tons to the acre, which was not a bad yield, considering that they were planted a month too late. LAWRENCE DENNIS.

\*

## To Kill Cabbage Worms

I use common table salt, about one handful to every head of cabbage. It not only kills the worms, but also destroys the eggs, as we call them. It also seems to help the growth of the plant. Of course, the remedy has to be renewed after each rain, but it is a sure one. The salt injures the outside of the leaves if the sun is rather hot, but otherwise it does not damage the cabbage. D. G. EGCESTEIN.

\*

## Corn from Suckers

It is not generally known that corn suckers will produce good ears of corn, but this they will do if properly cultivated.

It doesn't pay to destroy the suckers, as they may be made to increase the yield very much. Any land that is fertile enough to cause the corn to put forth a vigorous growth of suckers is strong enough to produce an ear of corn on each sucker.

My plan is this: Plant the corn on a flat seed bed and cover so as to leave the surface of the drill no higher than that of either side. In cultivating do not plow with anything that will put dirt to the corn until the suckers have well started, in order that they may put out as low down as possible. When they have grown sufficiently large to bear a little dirt without being covered up, go around it with a small plow, and as soon as they are large enough to stand more, put the dirt up to it with a turning plow. This is done in order that the suckers may take root, for if plenty of earth is put around them at the proper time they will take root and cease to draw upon the parent stalk; then each sucker will produce an ear of corn the same as the original stalk from the grain.

It is well known, I suppose, to all farmers, that suckers often produce corn on the tassel. This is the case when it has no earth in which to take root at the proper time, and has to draw its support from the parent stalk; and furthermore it is well known that such suckers injure the productiveness of the parent stalk. But this is not the case when they are permitted to take root. The ear always comes at the proper place on the stalk, and does not seem to impair the productiveness of the parent stalk in the least. I grow a large variety of corn that never makes more than two ears to the stalk, and I often get a good ear off of each of two suckers, and two good ears off the parent stalk. M. L. OSWALT.

## Farmers' Correspondence Club

## Planting Corn on Unplowed Land

I could not plow my land last winter, for there was too much rain. So I planted my corn in the rough furrows with the planter, then took a side plow and lapped the land. I had no trouble in getting my corn up.

To prevent wireworms from eating corn, dampen corn in pine tar before planting. OTTO C. TIMME.

\*

## Bracing Gate Posts for Wire Fence

When putting up a string of wire fence each way from a gate, dig a trench about five feet deep, two feet wide and as long as the gate is to be. Set a post in each end of the trench, and then roll in a log so the posts will rest against it. Fill in about three or four feet and then take three strands of large, soft wire, run them around the posts and twist together so they will be just below the ground. Then finish filling in. Those posts cannot be pulled up or lean over. A. P.

\*

## Wood Ashes as Fertilizer

Wood ashes is recognized generally as a fertilizer, and there are few crops but that are benefited to some extent by their application. Some crops are benefited more by their application than others. The ashes contain from four to seven per cent of potash, from one to two per cent of phosphoric acid and from forty to forty-five per cent of lime.

From a commercial fertilizer standpoint only the potash and the phosphoric acid are considered as of value, but the lime has a value, and will benefit most soils. The indirect benefit to the soil is often of more value than the direct, and is of an especial value to clovers and other leguminous crops.

A few years ago I spread a moderate application of wood ashes on the top of a small part of a wheat field just after the wheat had been sown. Two years after this I sowed the field to wheat and clover. This plot of ground was plainly traced by the thrifty growth of clover and the poor growth of wheat. The clover headed out and the wheat was almost a failure on this plot. The caustic nature of the ashes has a tendency to eat up the humus of the soil and render the fertility in it available. It helps to render inert fertility in the soil available. A. J. LEGG.

\*

## Grapes for Many Farmers

I have noticed that many farmers do not cultivate any grapes. The ordinary farmer might easily produce all the grapes needed to supply his family with little cost. Six grapevines of the Concord or Worden variety, properly cared for, will produce an abundance of fruit. I prefer the Worden grape; it is larger than the Concord, is sweeter to the taste, just as productive and just as hardy.

Any of the leading nurserymen will furnish the vines one year old at from six to ten cents each. An agent would charge fifty cents or one dollar per vine.

Plant the vines in a row eight feet apart where you can cultivate both sides of the row; set posts for a trellis ten feet apart, stretch three vines tightly and you have your little vineyard. The vines should be trimmed once a year. The FARM AND FIRESIDE and other farm papers will tell you how to trim them, and for the work of a few hours each year every farmer could have an abundance of grapes. U. S. ELLSWORTH.

\*

## Carrots for Butter Color

We prefer carrots to any butter color we can buy. They not only give the butter a fine golden color, but improve the flavor. Grate one medium-sized carrot for each two pounds of butter; add to the grated carrot about a pint of water and strain through a thin cloth. Put this water in the churn just before the butter is ready to gather.

We raise the Danvers carrot for this purpose. It might be better to feed the carrots to the cows, but we cannot raise enough to afford that. Our customers all say that our winter butter looks and tastes like June butter. S. M. FARNUM.

\*

## Seed Testing

Let us say that we are going to test clover seed. After getting some small samples of the various brands of clover, get a plate with a smooth rim and cut out two pieces of thick cloth so that they will fit in the bottom of it. Wet the cloths in warm water and after moderately wringing them out place one of them in the bottom of the plate. On this lay one

hundred of the seeds to be tested of one of the brands. Over the seeds place the other cloth and cover with another plate. Then place the tester in a warm place.

The seeds will begin to germinate in about forty-eight hours. Examine them every now and then and remove all that have germinated. After all that will have germinated count those that have not. Boil the cloths for ten minutes to remove all fungi, and repeat this process with the other brands. The brand of which the most seeds germinate will be the best brand to buy. CARLYLE KEYES.

\*

## Early Potatoes

We first sort out our seed, taking all medium-sized potatoes of any early variety, and place them so each one gets the light, stem end down, in shallow boxes or trays to sprout.

When the ground gets warm we plow, pulverize and furrow out; then carefully place the sprouted potatoes in the furrow, cover very lightly, fertilize with poultry manure, fill up the furrows and await results. A. C.

\*

## Corn Culture

In planting corn I get the best results by breaking the ground in the fall and getting it planted as early in the spring as the weather will permit. Before planting the ground should be put in fine fix by harrowing and cross-harrowing. Then cross your ground with a small turner and plant.

When the corn is up two or three days begin plowing, being careful not to cover up the corn. Thin at the proper time. Keep weeds and grass down with a hoe. Plow at least three or four times.

For fertilizer I get the best results by using the droppings from the henhouse, and wood ashes that have been saved up during the fall and winter and kept in a dry place. I drop a small handful in each hill when planting the corn.

I also find it a good idea to sow the field in cowpeas when plowing corn the last time. N. B.

\*

## How I Plant Summer Turnips

As soon as the ground will do to work in the spring I prepare a place for summer turnips.

After I get the ground in good condition I cover it with straw or chaff, dry grass or anything available that burns well, cover one or two inches and burn off. When the fire is out and the ground cooled down, which takes two or three hours, I sow my seed broadcast. Burning the trash on the ground kills the weed seed on the surface and warms the ground so the turnip seed comes up quickly. The ashes on the ground keep the insects away. By this method I soon have turnips for my table which are far ahead of the pithy ones kept through the winter. W. L. P.

\*

## Transplanting Evergreens

Thousands of evergreen trees have been lost by wrong planting. This is the secret of success. I never let the sun shine on their roots; put no water on them. If the sun shines put them in a bucket of moist dirt before bringing them out. I generally plant on cloudy days or after sundown.

Water to any extent will kill them, even after being well rooted. Mark your ground lightly, but make holes just as you plant them, not letting dry dirt touch the roots. Mulch with any kind of straw or dirt, and they will live and do well. J. E. W.

\*

## Tree Planting Upon the Farm

No farmer should let a season go past without planting a few trees upon his premises. In thirty odd years I do not recall a season when I did not plant a few trees, and now look with pride upon the stately growth and appearance of some of these that were planted even in my boyhood days. While my planting has not all been confined to one farm, yet, I am sure that those who have followed appreciate my attempts in forestry work.

Many farmers who are drifting about from one farm to another, doubting whether they will own this or another farm next year, neglect tree planting. To these, as well as to those that are known to be permanently settled in life, we would say, plant a tree. Those who follow in your footsteps will no doubt bless you for your effort.

Do not let this beautiful home of ours—America—become a barren desert through our ruthless hands, but plant trees.

If Arbor Day does not present the op-

portunity time, that need make no difference; make an arbor day of your own. A farm with plenty of ornamental trees tastefully arranged will always sell for more money and is of greater value and pleasure to those who reside in such a home. The time of bleak, barren homesteads is past, and the years that come must find the farm home surrounded with beautiful shade and ornamental trees and wind-break hedges.

Reader, do not let another year pass over your head without planting some trees about the home. They will grow while you sleep and rest and will join in to make the family fireside a cheerful place in old age. The early morning bird will come there to nest and warble sweet notes to its mate in the mild springtime. GEO. W. BROWN.

\*

## Reclaiming Worn-Out Land

A neighbor has a field which was farmed for several years and abused in such a way that it seemed entirely worn out. It was deserted and allowed to go back to sod. After several years it was broken up, but seemed to be barren.

The field was then sown to alfalfa, which yielded well, and in the short time of three years was plowed up, sown to wheat, the following year planted to corn, and both years it yielded abundantly.

As to the hillside land, we now have forty acres in alfalfa for the reason that it had washed till it was getting light and grainy and would not support a crop without much rain. And with rain the crops would wash out. It now bears a good crop of hay and a good crop of seed every year, unless it is exceptionally dry. The upland seed is of superior quality, but the yield is not so great as on the bottom.

The soil that was once light and grainy is now of rich color and firm, and it stands to reason that it would yield abundantly sown to any crop. G. APLELAPLAIN.

\*

## Raising Early Squash Plants

Having made a crop between the Delicious and Marblehead squashes, and being anxious to save the plants and get them started early, I took a flour sack, the paper of which is tough, and cut it into strips six inches wide and long enough to make a circular bottomless sack by sewing the ends together on the sewing machine. The sack when finished was about three inches in diameter.

I then procured a box the height of the sacks that held as many as desired and placed them on end in the box and filled them half full of fine soil.

I then placed three seeds carefully in the sacks and filled them full of dirt and then watered until the ground was sufficiently moist and placed the box under the kitchen stove. In a few days I was gratified to see the plants appear—strong, healthy ones, and how fast they grew the first few days. I kept the ground sufficiently moist for them, and gave them sunlight and air. When the weather permitted I set the box on the porch in the sunshine, and thus cared for them until I was ready to plant them in the garden.

When the weather was warm enough to set them out I carefully removed each sack from the box and set it in the place prepared for it. The paper had rotted and the ground was matted with roots, which made it easy to remove each one of them separately without any trouble or injury to the plants. The result was squashes of medium size, some resembling the Delicious and some the Marblehead. The quality was good but not superior to either of the parents. To-day, February 7th, we are cooking the last one.

W. E. FULLER.

\*

## The Things the Farmer Needs

The farmers in this section of the country need to be educated. What would we think of a lawyer or a doctor who did not keep up with the times in all the lines of his profession? He would soon be counted as a back number and lose his patronage.

What is good for the professional man is good for the farmer. He needs to keep up with the times in regard to the best breeds of stock, the best and most improved farm implements, the best seeds of all kinds, and the best way to market his products. He should also learn what crops his farm is best suited for and that find ready sale in the market in his reach. To be a successful farmer he must be a wide-awake man.

He needs to read good agricultural papers and books, and take such advice as suits his condition and put it into practice. And, above all things, he must make a good use of all his time and try to keep his work ahead. Then farming will not seem such a drudgery, but will be a good and pleasant occupation. He can, if he will, be the most independent man on earth. S. H. SWANSON.



FIVE different Illinois farmers' associations recently met at one convention in the Illinois Agricultural Building at Urbana. They were the Illinois Horse Breeders' Association, the Illinois Cattle Breeders' Association, the Illinois Swine Breeders' Association, the Illinois Sheep Breeders' Association and the Illinois Cattle Feeders' Association. These five associations are combined in the Illinois Live Stock Breeders' Association.

It is doubtful whether ever in the history of Illinois so much real farmers' interest has been crowded into one meeting, whether in the space of three days' time so many important subjects were discussed by such an array of farming and breeding authorities. A meeting of any one of these five associations never fails to draw a big crowd or to stir up the liveliest interest.

## Live Stock Breeders' Convention

BY J. L. GRAFF

to do. They are holding down the scientific and experimental end of farming, but the actual experience of the men who are now and have been engaged in diversified farming and stock raising back up the work of the professors in some talks that are as valuable as plain English may make them, and many of them are so unique as to hold the attention of every listener in the big hall that is provided by a great state for just such a purpose.

The Legislature of Illinois furnishes the money to organize and keep organized

Some of the results of these combined meetings are seen in startling figures of the last corn crop of Illinois. The work of the institutes, given their impetus by the scientific work at the agricultural college, reinforced by the corn breeders, and still further by the combined work of the college and the railroads in placing an agricultural college on wheels and rolling it through the corn belt, has resulted in increasing the corn yield of the state by 38,000,000 bushels. The crop of Illinois in 1904 had reached 344,000,000. It is esti-



A BUNCH OF GALLOWAY PRIZE WINNERS

To merge five of them into one convention, and thus draw together the men who not only are producing one kind of stock, but five of them, and raising sufficient food to fatten all of them, forms an event in which there is not a single uninteresting moment.

Immediately preceding this convention there had been held a corn growers' convention. The stockmen arrived in time to attend the corn meeting, and the corn men stayed over for the stockmen's affair.

farmers' organizations. There is one state farmers' institute and a like organization in each of one hundred and eight counties. The state appropriates fifteen thousand dollars a year to keep such work going on. In one year one hundred and six of the one hundred and eight counties held local institutes, some of them two. These institutes were attended by twenty thousand farmers and ten thousand farmers' wives, by two thousand teachers and twenty thousand pupils. The county institutes organ-

ized that the crop of 1905 will reach 382,000,000.

Such a crop, besides being shipped away to be put to a large variety of uses that scientific breeding has found for it, feeds great herds of stock, not only those that are produced on Illinois farms, but those that are brought in from the far Western ranges to be fattened for market. The Cattle Feeders' Association to-day is one of the most important of the state, made so by this increasing interest of realizing



CHEVIOT SHEEP ON AN ILLINOIS FARM

The agricultural college people purposefully plan to bring such a crowd together. They claim that the influence is beyond calculation. There is another object. There are now in attendance at the University of Illinois about three thousand boys and young men. A large number are taking the agricultural course in the big state institution. Scores of them attend all of the meetings of the farmers. They hear read the papers prepared by men who have had years of actual experience, and the discussions that are joined in by the farmers who have sent the fame of the Prairie State to all countries. This is the very thing that the professors strive

to do. They are holding down the scientific and experimental end of farming, but the actual experience of the men who are now and have been engaged in diversified farming and stock raising back up the work of the professors in some talks that are as valuable as plain English may make them, and many of them are so unique as to hold the attention of every listener in the big hall that is provided by a great state for just such a purpose. The Legislature of Illinois furnishes the money to organize and keep organized

from crops by feeding it to thousands of hungry steers, sheep and hogs.

The plan of bringing under one roof such a variety of interests has been reduced to such a system that it is comparatively easy to accomplish. The college has a bureau through which it secures reduced rail rates for all who desire to attend. The college people go so far as to aid the visitors in finding hotel accommodations. They extend the real hearty glad hand to all and keep them at meetings that are calculated to benefit agriculture from almost every conceivable standpoint, and to keep on doing so from year to year.

### An Alfalfa Missionary Retires

Since reform is the watchword of the hour I think I will try it this season.

For ten years I have been growing alfalfa and preaching its wonderful qualities to every listening ear, and while preaching I have tried to be consistent in practicing, and have never, like some foolish fellows, advocated putting the whole farm in alfalfa, for I have always said and still believe that half is enough. So while I still believe that it is one of the richest blessings a kind Providence ever bestowed on ungrateful man I'm going to get down and out. Why? Because everybody in this section who made a failure laid the blame on me, and not one who succeeded gave me one iota of credit.

Last season was a peculiar one. Unprecedented rains through May and June made planting and seeding uncertain, and there were more failures in seeding alfalfa than ever before. One party that I labored with for years finally got his "courage screwed up to the sticking point" and ordered his seed in the winter as he should, and then when a nice warm spell came in March he decided it was just the time to sow, and although I nearly wore the end of the telephone wire off pleading with him not to sow he persisted, and now when only a few spindling plants can be found he intimates that I got him into it and ought to pay for the seed he lost.

Another sowed about the right time, but a big rain came immediately and washed some away and covered up the rest so deep it never got up, and now when I say alfalfa to him he looks at me with an injured expression that is not a bit nice.

And so on through the entire list until I almost imagine I know how the early Christian martyrs felt.

Now in the future I'm going to tell all the faults and disadvantages of alfalfa, and let people find out the good for themselves. In the future when a friend asks me for suggestions I'm going to take him off in some dark corner and whisper in his ear, "Don't do it. Remember the good old adage, 'Never trouble trouble, till trouble troubles you.' If you sow alfalfa you may destroy your peace of mind and bring down your gray hairs in sorrow to the grave. You will be chained to your pitchfork like a galley slave to his oar. When you get some corn planted and are interested in the first working about the first of June you will find the alfalfa blooming, and it must be cut at once or it will be woody and tough and the stock will not like it. Then in July, when the threshing is done and you begin to plow for a rotation, there is the second crop ready to cut and you won't get even a day off to go fishing. About the last of August, when, if ever, a man ought to have a little leisure and time to attend camp meeting at least, there is another crop, not big and raw, of course, but fine and leafy and almost equal to wheat bran for value, and you will just hump yourself to get it in in good condition. In October, when you are just as busy as a hen with one chicken, with your wheat seeding and sowing the corn crop, there is that everlasting alfalfa to cut again. It is one unending grind and you won't get any vacation till next year. Take my advice and don't sow it, for you will work all summer saving it and all winter feeding.

"If you pasture it the sheep and cows are liable to bloat and die, and if they stay on after freezing weather they will tramp it to death. I know it will bloat, for last fall after my ewes began to lamb and the nights were cool I would bring them across the alfalfa field on the way to the barn. They liked the aftermath and would eat it greedily and I sometimes let them linger, but one evening they lingered too long—and—well, just a few sheep pelts hung where I see them often remind me that that mistake will not be made again.

"Feed it to horses and they soon get foolish and won't eat anything else unless starved to it. Let the cows have it and you must keep it up or they will bawl all the time.

"The seed is expensive and you may get dodder and other bad weeds. It is hard to get a uniform stand. It is hard to cure—worse than clover. If you want to live a peaceful, quiet life, let alfalfa alone."—John B. Peelle in National Stockman and Farmer.

\*

### With the Busy Bee

In all our operations with bees we must use gentleness. All quick, sudden jars and motions irritate them.

Bees are always more gentle and less inclined to sting when they are gathering plenty of honey, and at such times the hives can be opened with very little danger; whereas, when there is a dearth of honey, the inmates of the same hive might show a great spirit of resentment.—F. G. Herman in the Farm Journal.



## The Old Shuck Hat

BY GEORGE DALLAS MOSGROVE

When the man who wears the old shuck hat,  
That hardly costs a penny,  
Steps out in view, a yeoman true,  
He is the peer of any.

'Tis such as he whose patient toil  
Has made the land to blossom,  
And yet he'll ride with you to hounds  
Or hunt the sly opossum.

He's full of life, the honest sort,  
A host who'll treat you royal;  
When war's alarms call men to arms  
You'll find him true and loyal.

His heart's pure gold, whate'er his hat,  
His aim is true and steady,  
And tho' the dude may think war rude,  
You'll find old Shuck Hat ready.

And so I speak for him who wears  
The homemade shuck or straw;  
Its honest crown has more renown  
Than costliest Panama.

So here's to him who wears the shuck,  
In peace or battle's roar;  
And here's to him—to the amber brim—  
And the hat our fathers wore.

\*

## The Spelling School of Other Days

**D**o you remember that spelling school you attended when you were a youngster at the old district school? Do you remember how you "chose up" and how triumphant you were if you happened to "spell down" the rest of the school? Happy days those were in the old schoolhouse, and happy times you had going to the spelling school in the old pung or bob-sled with the girl you were sure you loved best by your side. You found the schoolhouse well lighted with home-run tallow candles, and perhaps you carried one with you to send forth its own little light after you reached the schoolhouse. You usually found the old box stove in the middle of the room red hot, and there was always a good deal of "sociability" around it before the spelling contest began. The spelling school was a social as well as an educational event, and young and old crowded the schoolhouse almost to overflowing. Sometimes even the grandfathers and grandmothers were chosen when it came time to "choose sides" for the contest, and there was sure to be a good deal of merry railery when some old lady "spelled down" the entire school.

The spellers stood facing each other in two long rows. Sometimes "trappers" were chosen and—"what were 'trappers?'" ask some of the uninitiated of to-day. A "trapper" was a boy or person chosen to go to the end of the line and if anyone in the other line missed a word and the trapper spelled it correctly, he or she went up one. The "trapper" reaching the head of the line first had won the victory for his side and was properly jubilant over his triumph.

Sometimes the method was for anyone failing to spell a word to sit down, and the person standing longest was of course the winner. Again some one would "keep tally," and the side missing the most words in a given length of time would be defeated.

The interest was never so great as when one school challenged another to a spelling "bee," to see which could spell down the other. Then the two schools faced each other in battle array, and the contest waxed eager and strong. With what triumphant ease did the best spellers spell the "jaw breakers" of six and even eight syllables, and they were not to be caught easily on "silent" letters. "Unintelligibility" and "perospondylia" were no more to them than "cup" or "pup," and they knew just how and where to ring in the senseless "silent" letters in such words as "phthisic" and "plaque" and "receipt." The double "l" and the double "e" gave them more trouble, and sometimes they would find themselves in the most harrowing doubt regarding the "y" and the "i" in some words. A single trial was the rule, and if they failed the first time there was no second opportunity, and they had to endure the humiliation of the "spelled down." When two schools met in a spelling combat loud and jeering were the triumphant shouts of the winners, and bold were the assertions of the defeated that the triumphant school would not have a leg left on which to stand "next time."

Sometimes the spelling was so atrociously bad that it created shrieks of laughter, as in the case of the big fellow who spelled "goose" "g-u-s-e," or the unwary speller who spelled the word "ask" "a-s-q-u-e," and when told to sit down said:

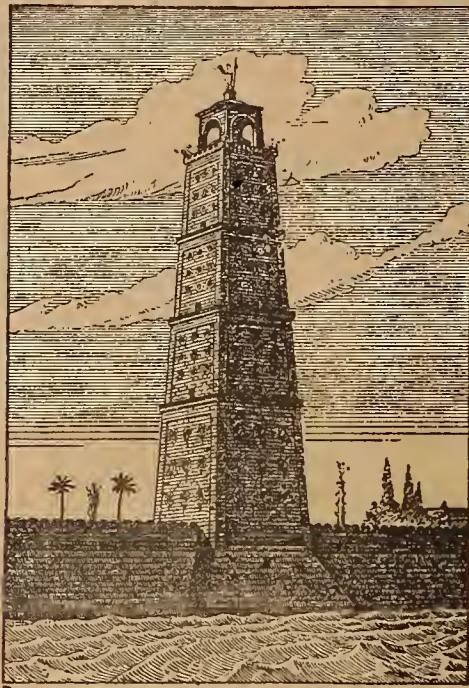
"Well, if 'b-a-s-q-u-e' spells basque, why should not 'a-s-q-u-e' spell ask?" Why not, indeed? But it did not, and he



## Around the Fireside

had to sit down muttering his discontent. Then there was the speller who always put an "h" in sugar and who spelled "there" with an "a." Some of the girls accepted defeat with convulsive giggles, while others hid their blushing faces in their confusion.

How intense was the excitement when but two of the spellers were left standing, one on either side! How cautiously they



THE PHAROS OF EGYPT

The famous lighthouse at the entrance to Alexandria Harbor, restored

spelled and how eagerly everyone listened! Sometimes the winner, if a boy or a young man, would be carried from the room on the shoulders of the other boys of his school, and there would be three cheers and a tiger for the successful one.

Then would come blissful success or galling defeat to the boys who stood outside the door waiting for the rural lassies

It was known as one of the seven wonders of the old world. Although the descriptions in classic literature of this famous lighthouse are very meager, a German architect, Professor Adler, of Berlin, has succeeded in reconstructing on paper the famous tower, which we reproduce here.

Herr Buchwald writes interestingly on the subject in the monthly magazine "Prometheus," of Berlin:

"The first stone of the Pharos lighthouse was laid by King Ptolemy Logi, about the year 299 B. C. The structure was completed in ten years. The architect, Sostratos of Knidos, obtained royal permission to inscribe on the tower 'Sostratos of Knidos, Son of Dexiphanes, to the Gods, Guiders of the Mariner.' The cost of construction of the entire tower, we are informed, amounted to eight hundred talents of gold, equal to probably about one million dollars of our present currency. The height one hundred and eleven meters (approximately, three hundred and sixty feet); and the beacon light, according to ancient tradition, was visible at a distance of thirty miles. The source of illumination is doubtful. The open shaft, with a pumping device, indicates that oil of some kind was used, and the lantern engraved on local coins eliminates the idea of the open wood fire. All through the wars of the Romans and Mohammedans, up to the middle of the seventh century, the lighthouse was kept in working order. After that neglect and decay set in, and by the middle of the fourteenth century the famous lighthouse was little more than a ruin."

One of the other famous lighthouses of antiquity was the gigantic iron statue of Rhodes, the principle of which has been revived in the Bartholdi statue of Liberty in New York Harbor. This was the famous Colossus of Rhodes. It was destroyed by an earthquake, and, as an oracle forbade its reconstruction, the metal of the famous statue was sold by the conquering Arabs, who had overrun these parts, for what would be equal to two hundred thousand dollars of our money to-day.



ALBERTOS SANTOS DUMONT

The World-Famed Aeronaut Who is Building the Airship and Who Will Pilot it to the Arctic Region

WALTER WELLMAN

The Well-Known American Newspaper Man Who Will Seek the North Pole in a Dirigible Balloon

to appear, that they might put the question, "May I see you home?"

The boy who "got the mitten" suffered a degree of defeat and embarrassment even greater than that of being "spelled down," and an added touch of gall was given to his bitterness when a successful rival walked off before his very eyes with the girl who had "mittened" him.

The spelling school is a thing of the past in most rural neighborhoods, and nothing has taken its place productive of more genuine enjoyment. J. L. H.

## Lighthouses of Antiquity

Of all the lighthouses of olden times, perhaps the most famous was the granite tower on the island of Pharos, at the entrance to the harbor of Alexandria, Egypt.

to get an idea of the original construction of the latter tower, which is the only one, excepting the Pharos, which is in any degree of preservation to-day. At the end of the eighteenth century the Spanish government restored this tower, and since that time it has served the shipping of the world without interruption.

## Sons of Eminent Men

[CONTINUED FROM LAST ISSUE]

President Lincoln's surviving son, Robert Todd—"Tad," his father's idol in Civil War days, died when only a boy—has won higher honors than fall to the lot of many men in law, in the public service and in business.

His mother wanted him to go to West Point, win distinction as a general and then be president, like his father. The young man did not like this programme; neither did his father, and though, at Mr. Lincoln's request, he served for a time on General Grant's staff as captain, he finally carried his point and went to Harvard, where he studied law. He was twenty-two when his father was shot, and soon afterward went to Chicago, where he speedily built up a practice in chancery and other cases involving careful search and profound knowledge of land titles. The destruction of a large proportion of the real estate records of the city in the big fire made such a practice very valuable, and he had an exceptionally good income for years before he was made Secretary of War by President Garfield in 1881. He returned to the practice of law when Cleveland assumed the presidential chair, but in 1889 was made minister to England by President Harrison. After his return to America he became identified with the Pullman Palace Car Company; on Mr. Pullman's death he was made president of the corporation, and now, at sixty-three, is a great captain of industry.

Of President Grant's sons, the eldest, General Frederick Dent Grant, is now in command of the Department of the East at Governor's Island; Ulysses S. Grant spends much of his time near Purdy Station, N. Y., where he has a farm, and where he says he would rather "sit on the fence and whittle in the sunshine than be the emperor of the whole earth." He spends considerable time, too, in California; and Jesse R. Grant, the third brother, also lives in the Golden State. Like Ulysses S., he has never made a prominent place for himself. But both have always been solid, reliable citizens, a credit alike to themselves and their countrymen.

The present General Grant was educated at West Point, was an assistant engineer in the survey of the first Pacific railroad, was sent as United States Minister to Austria by President Harrison, and served as police commissioner of the city of New York with Theodore Roosevelt. Benjamin Harrison made him minister to Austria, and Cleveland wanted to continue him in the place, but he declined. When the war with Spain broke out he volunteered his services, and was made colonel of the Fourteenth Regiment, equipped it in record time, and started for the front a few days later. That he did not get there was not his fault. Later he went to the Philippines, and is now undoubtedly confirmed in the military career.

The sons of President Hayes are all engaged in the law business. Webb C., who attained brief prominence as a volunteer, is in Cleveland; R. B. Hayes is a citizen of Asheville, N. C.; Burchard is in Toledo and Scott A. is in Pittsburg. Neither Alan Arthur nor Russell B. Harrison has ever essayed to shine in public life.

Two of Garfield's sons have made good, and there is time for the other two to forge to the front. Henry Abram Garfield, the eldest, is now professor of politics at Princeton, where he succeeded John H. Finley, the first incumbent. Although it is an honorable thing to be professor of politics at a great university, his acceptance of the chair was a surprise to his friends and admirers, for he had had many opportunities to enter public life, and had made both reputation and wealth in the practice of law, and as a banker, being president of a big trust company and connected with many other financial institutions in Cleveland.

In 1902 he was offered a place as national civil service commissioner by President Roosevelt, but declined it; the post was then given to his brother, James Randolph Garfield. This young man—he is still under forty—seems to have inherited the political tendencies of his father. He has been a senator in the Ohio Legislature and was the author of a particularly stringent election law, which possibly was the cause of his defeat when he sought the nomination for Congress from his father's old district. He still cherishes the ambition to serve the district in the House as his father did before him. He is now commissioner of corporations in the Department of Labor and Commerce.

[CONTINUED ON PAGE 15]



## Clara Barton at Eighty-Four

BORN in the little town of Oxford in Massachusetts eighty-four years ago, Miss Clara Barton, the world-famous originator of the Red Cross Society, is spending the sunset years of life in her birthplace. She has a large and beautiful home at Glen Echo, on the Potomac River, six miles from Washington, but most of her time during the past year has been spent in Oxford, where she continues her life of active usefulness.

Always a worker, Miss Barton is never idle, even in her old age. Indeed, she does a surprising amount of work for a woman of her years, and is determined that she will never "rust out." Miss Barton looks like a woman of seventy. There is scarcely a touch of gray in her shining brown hair, and her movements are those of an alert woman.

No American woman has had more interesting experiences than Miss Barton, and no woman has rendered her country greater service. Kings and queens have delighted to honor her, and she has been decorated by the rulers of many countries. Her services to humanity have made the world her debtor, and in her old age she is full of plans for being helpful to others. She is now carrying forward plans for making more complete and effective her "First aid to the injured" work. Experience has taught her that much human suffering might be avoided if people had a more general knowledge of just what to do "before the doctor comes" in cases of accident. She is particularly anxious to have railroad companies equip hospital cars to send out in cases of accident. Speaking of this plan recently Miss Barton said: "Think of the good that might be accomplished by having a system of hospital cars. My plan is to have each railroad keep at least one hospital car always ready to dash away at a moment's notice to the scene of any accident. I want them to keep a car prepared to start, just as an engine and the wrecking outfit is kept. I would have physicians and surgeons on the car and supply every equipment and means for the relief of the wounded. At the call this car would have the right of way. In the car would be bandages, hot and cold water, ice, surgical instruments, and the surgeon with his assistants. How much better this would be than the present method! Instead of loading the injured onto a car, to be perhaps carried many miles before a hospital or adequate surgical treatment can be reached, the injured would be tenderly cared for at the scene of the wreck."

Miss Barton and some of her friends have organized the First Aid Association. This association is trying to have classes organized for the purpose of studying the best method of giving immediate aid to the injured.

Most of Miss Barton's life has been spent in relieving human suffering, and nothing appeals so powerfully to her today as suffering. She feels that education along certain lines would lessen this suffering very much, and at four score and four years of age she is still working for others.

Miss Barton's life history is very interesting. She lived in Oxford until she was twenty-five years old. She was a public school-teacher for ten years. When the Civil War came Miss Barton went on to the battlefields to organize relief work. Congress appropriated fifteen thousand dollars to help carry forward her work of searching for missing men. Miss Barton laid out the grounds of the national cemetery at Andersonville. She worked through the entire Franco-Prussian war of 1870. She distributed relief in Strassburg, Belfort and Paris in 1871 and secured the adoption of the treaty of Geneva in 1872. She gave invaluable aid with the assistance of the Red Cross nurses at the time of the Johnstown flood in 1892. The next year found her working in Russia to help the sufferers from the great famine. The year 1898 found her in Cuba in compliance with a request from the president that she inaugurate relief work there. She did personal field work during the Spanish-American war, although she was an old woman at that time. She was nearly eighty years old when she hurried to Galveston to inaugurate relief work after the great disaster of 1900.

Miss Barton holds decorations from Austria, Baden, Germany, Turkey, Serbia, Armenia, Switzerland, Spain and Russia. One never sees her without the great amethyst pansy with a single large pearl in the center given to her by the Duchess of Baden-Baden, and the pin encircled by pearls that she so often wears was presented to her by the Empress Augusta. The present Czar of Russia has decorated Miss Barton, and she has not inappropriately been called the "Florence Nightingale of America." Her usefulness has equaled that of Miss Nightingale's, and it has not come to an end even at the age of eighty-four.

MORRIS WADE.

## Around the Fireside

## The Salem Oak

The "grand old tree" of Salem, N. J., is the pride of the city, and the distinct charge of every loyal Salemite.

The tree is loved with a love like that bestowed upon a human being, for in its three hundred years of life it has given grateful shade and comfort to thousands who have passed from the earth.

Before Philadelphia was even thought of William Penn and his colony made a



Copyright, 1904, by J. E. Purdy

MISS CLARA BARTON

landing at Salem, then nothing but a beautiful forest, and out of the slaughter of trees this one handsome oak was saved, and has successfully battled with wind and weather well on to three hundred years. The spread of its branches is one hundred and seventeen feet; its girth two feet from the ground is twenty feet eight inches, and its height is eighty-five feet. The tree is in the center of the Quaker burial ground:

## Sons of Eminent Men

[CONTINUED FROM PAGE 14]

Irwin McDowell Garfield, the third son, is a lawyer in Boston. Abram, the fourth son, "the baby of the White House" when his father was president, is of a scientific and practical turn of mind. He was educated at the Boston School of Technology and may be heard from by and by.

Practically all of the presidents' sons who have grown to man's estate, then,



AN OLD AND FAMOUS OAK AT SALEM, N. J.

Photo by Cora Shepard Lupton

have been good citizens; their lives have been clean, wholesome and a credit alike to their parentage and their country, while ten of the twenty have won unusual distinction.

It would be hard to find any other class of prominent Americans whose sons have done as well as those of the presidents, though many sons of eminent senators and representatives have won distinction.

Simon Cameron's son, Don Cameron, succeeded his father as the political prime of Pennsylvania. Blaine's son, Walker, would have made a noteworthy place for himself, probably, if he had lived.

The first Bayard to sit in the Senate from Delaware, James W., was succeeded by his sons, James A. and Richard H. The latter's grandson, Norman F., was also a

senator for many years. The Stockton family, of New Jersey, furnished five senators, the term of the first, Richard, who was one of the "signers," being preceded by service in the Continental Congress, and the term of the last, John P., concluding in 1875. The Frelinghuysens, also of New Jersey, gave three senators to the country; the Colquits, of Georgia, as many, and members of all four of these families have served the country in other ways with distinction. The son of the late Speaker Crisp has done better than any speaker's son, having succeeded his father in Congress.

Of the captains of transportation who created America's great lines of rail in the second half of the nineteenth century, Jay Gould and Commodore Vanderbilt only left sons who have been able to hold up their end. Whether William H. Vanderbilt, son of "Commodore" Cornelius, the founder of the family, would have shown enough force to make his way unaided by his father's money is of course a question. His father appeared to have little faith in him, and for years after William H. was a full-grown man, kept him on the now famous Staten Island farm. Yet when the commodore died, and William H., then fifty-five years old, was left in charge of the property, he speedily made good. He had only nine years in control, for he died at sixty-four, in 1885, but in the nine years he increased the Vanderbilt fortunes from one hundred millions to at least double that vast sum.

[ TO BE CONTINUED NEXT ISSUE ]

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## April Fool Party

For the first feature of the evening the hostess scatters over the furniture and carpets several handfuls of nuts or coffee grains. Each player is given a wee silk bag and told to collect the nuts or kernels for a prize. Of course, each person works with might and main to gather in as many nuts as possible. Five minutes is allowed for the nutting. At the end of that time the nuts are counted, each person's score being kept by the hostess. Of course, the heart of the player who has collected the most spoil beats high with hopes of the prize. But here he makes a fatal mistake. The hostess announces that "it is unpraiseworthy to be a pig," and awards the prize to the player who collected the least.

The hostess next retires to an adjoining room and returns carrying a trayful of edible good things. There are bonbons,

every player can reach with his hand, and have it just large enough to admit a hand. Now turn down the drawing-room lights until the room is full of dim, shadowy recesses in which any sort of a ghost or goblin could lurk. The hostess then retires behind the scenes, and one of her aides invites different members of the party to come up to the curtain and thrust their hands through the hole. Nine out of every ten persons will excuse themselves, believing that some dreadful thing will meet the hand on the other side of the curtain. In this they are mistaken. There is nothing on the other side of the hole. The hostess retired merely to make it appear as if some eerie surprise were being hatched behind the scenes. Any right-minded guest who thrusts his hand through the aperture and finds it grasping empty air will, of course, have presence of mind enough to shriek and withdraw it in wild precipitation, thus keeping up the illusion and hiding the fact that he himself has been sold.

In fact, one or two of those present could be initiated into the secret and asked to put their hands through the curtain, afterward acting as if some dreadful object had been met with on the other side. These confederates should be members of the company who are known to have a talent for acting; they should be the first to be invited to the adventure.

A good sell that has just come out is prepared for by the hostess mentioning incidentally as an odd fact that her parlor wall around the top is always cold. She has never been able, she says, to account for this. When the company has been a little mystified over this strange phenomenon some one is sure to want to investigate. A ladder is produced and poised upright against the wall. Some man, of course, will volunteer to do the climbing. After patting the wall in all directions he declares that it seems to him of the same temperature all over. "Dear me," says the hostess, innocently, "don't you feel a frieze?"

After a few minutes' conversation some member of the party in league with the hostess suggests that optical illusions make an interesting experiment, and announces that he has lately taken the matter up. He proposes to make one of the women appear to crawl into a box and produces a very small one. Some girl will respond to his call, for an assistant. He leads her into the corridor and prevails upon her to creep a few inches upon her hands and knees; just far enough, in fact, to enter the drawing room. By doing this, he explains, when she has done it, she has crept in to a box.

\*

## The Old Iron Stove

I hate to part with you old stove!  
You've warmed me these forty years;  
And stayed by me more than half my life.  
Bright days and dark days, sad days and glad days,  
Autumns chill and winters cold,  
Have found you always in your place.  
Though we have passed some dreary days  
by your side,  
We have also had jolly times around your genial glow,  
And you held your peace and were true.  
What a good friend is he who stands by you always,  
Keeps your counsel and is never false to your trust.  
Whenever I fed you, old stove, on coal or chips or old newspapers  
You digested them all and glowed with a cheerful warmth.  
When the smoke pipe sulked you told me,  
And when I cleaned out the soot how you rejoiced  
And breathed freer and lighted up the room  
With the joy of being able to serve me as before.  
Royally you did your work for forty years,  
But now your day is done and you must go or be turned into scrap or old iron.  
But, old stove, you will not go to the scrap heap alone;  
For it is certain I will shortly follow.  
Another forty years, aye less, and I also will be gone.

Old stove, you were faithful to the end.  
Would I could always be as true as you,  
Never indolent, never weary, never careless, never impatient of my work.  
Good-by, old stove! I do not know who will get you or how he will use you;  
But he and you will never be better friends than you and I.

I would not of my own accord let you go,  
For I can never forget the good work you have done;  
But duty calls and you will heed,  
For you have never complained or shirked a duty.  
And you will go into scrap iron or be melted in a seething mass  
As cheerfully as you went into a stove.  
May I be as ready to meet the inevitable change  
That will shortly come to us all.

DAVID M. JOHNSON.



# The Secret Agent

By Frank E. Channon

[CONTINUED FROM LAST ISSUE]

IRENE, Val, Mrs. Strong, the detectives, in fact all who could be, were already there. The crews of the boats were lined up ready for embarking, and Captain Murry was talking quietly to Mr. Bell, the second officer, who was in charge of the cutter, and to Mr. Ollif, who was going with the longboat.

"Land what force you can, Mr. Bell, and go in as far as you dare; they may need their retreat covered on the return trip. Don't be afraid to show your light as soon as you hear the rumpus commence, and flare your rockets as soon as the men are in the boat again."

"Aye, aye, sir."

"And you, Mr. Ollif, stand in close, and if that corporal's guard shows any inclination to interfere with our business, pepper 'em. Hail 'em first; tell 'em you've lost your bearings, and keep 'em gabbling, but if they get uneasy over the fuss in the rear, pepper 'em, sir. Do you hear me, pepper 'em. Directly you see the flare, head for us again, not before."

"Aye, aye, sir."

"Quiet, all, then; no cheering, mind. Man the cutter and longboat."

"One moment, Captain," interposed Irene, and stepping forward, she said: "Men, independent of what Captain Murry and Mr. Strong have done, I will give one thousand pounds to be distributed as prize money to the officers and crews of the two boats, if Mr. Barry Strong is brought off."

There was a suppressed murmur of applause from the crews. They would have hurrahed, but the orders were strict, "No cheering."

"Good-by—good luck to you!" cried Captain Murry. "I wish to God I could come."

Next moment the boats were being lowered, and a few seconds later they were swallowed up in the gloom. For some time afterward those on the "Willing Hand" could hear the rhythmic splash of the oars from the longboat, but those of the cutter were inaudible, for they were muffled.

## CHAPTER VII.

Again the same stretch of dreary sand, with its background of gaunt cliffs, and frontal of muddy ocean, but now the whole is lashed by the rain of a fierce northeast gale, and the soaked convicts utter a sigh of relief, as the bell of their cell houses commences to clang.

It has been a hard day, and guards and prisoners alike are worn out. The "cease work" order is given, and the convicts pile their picks and shovels in heaps, and with lowered heads, commence to trudge back through the driving rain to their dormitories.

Along the wind-swept road they shuffle, nearer and nearer to its bend, and only one man of the two hundred and eighteen convicts and guards knows that somewhere among the big boulders other men are crouching, waiting and watching.

Barry's breath comes quickly. He is a resolute man, used to facing danger, but here is a situation that taxes his powers to the uttermost. In a few more moments the supreme second will come; the wild dash for life and freedom will commence. Ten feet more and he will reach the turn of the road. He glances cautiously around from under his eyebrows. The nearest warden is twenty feet in his rear, and is trudging along with averted head, seeking only to avoid the stinging sleet.

Suddenly from the height above there comes loud shouting, followed a second later by the report of firearms, and then a startling yell of "Fire! Fire!" It is the signal.

Involuntarily the long line of convicts came to a halt, and in a second Barry had bent over, and was tearing from his ankle the circlet of steel, the break in which putty and cement had effectually concealed. But at this point occurred the first hitch in the plans. The wardens exhibited no confusion, nor did they even turn to look at the tumult above them, but with well trained precision, with their rifles at the ready, closed in on their prisoners.

The next instant Barry had sprung from the ranks, and was racing for dear life seaward. Equally as quick, however, the guard in his rear leveled his rifle at the flying fugitive, and with a single cry of "Halt!" fired. Barry stumbled, recovered himself, stumbled again, and then fell prone. He made a gallant effort to regain his feet, but it was useless. With a shout

of triumph two guards ran toward him. One, a brutal-looking fellow, raised his rifle to club the prostrate man, but before he could bring it down there arose a deep-chested shout from close at hand, and from beneath the gathering gloom, and from out the blinding sleet, there sprang three figures. There was a succession of flashes and reports, and the next instant the would-be clubber was writhing in the sand. Two of the figures had flung themselves upon the nearest warden, and before his companions could get to his side had raised Barry to his feet and started with him on a dead run toward the sea front. They had a good start of twenty yards before the other guards realized what was taking place. Barry was half running, half being dragged. Taking advantage of the uproar, one or two of the other convicts made a break for liberty. They were quickly recaptured, but their attempt helped the chances of the flying quartet. Barry and his rescuers had not raced more than forty yards before they heard the "ping, ping," of whistling bullets around them, and the noise of flying feet behind them, but it was nearly dark now, and the night was an ideal one for their purpose; they were almost invisible to their pursuers.

"Run! Run as ye never have, mon!" panted James, the man who held Barry's right arm.

Barry did not answer, he needed all his

great, stalwart Yorkshiremen, splendid physical specimens from that famous shire. Between them they dragged him along; sometimes on his feet, but more often on his knees; the Russian now in front, piloting the way, while, like some will-o'-the-wisp, the hopeful light danced in the distance. Once or twice they heard the noise of their pursuers behind them, and away off on the beach sounded an almost continuous rattle of musketry. It was the crew of the longboat, making things warm for the corporal's guard.

It was a wild road they took, and a wild night on which to take it, but the silent Russian knew the road like the streets of his native town. Springing from rock to rock, or wading through the soft sand and deep pools, he led them along, sometimes toward the friendly light, sometimes away from it.

Now from out the gloom came another hail, this time in unmistakable English.

"Willing Hand! Are you there? Give the countersign!"

With one voice the two Yorkshiremen roared:

"To be helped!"

There was a scrambling of many feet in front of them, and an authoritative voice inquired:

"Have you got him?"

"Aye, aye. Lend a hand here, we're most dead beat. He's shot. By God!



"Yes, Barry, safe now; safe at last"

breath. The warden's ball had struck him high up in the thigh, and it was with difficulty that he could keep his feet at all. Never was such a desperate race, with liberty and happiness for its goal, and worse than death in case of failure.

"They gain! They gain on us!" warned the Russian, as he thundered along in the rear. Next instant he had half turned and emptied the contents of a second revolver into a dark flying mass not twelve yards behind. There was a yell; fierce oaths, and then the stumbling of a heavy body in the soft sand. In front, they heard more shots and saw waving lights.

"In the Czar's name, halt!" the challenge came from out the darkness.

"Turn!" screamed the Russian.

In a moment they had left the sand, and were scrambling over jagged, slippery, seaweed-covered rocks, and slushing through great pools of sea water. In the distance, through the sleet, a light waved faintly. It was the cutter's crew, waiting for them.

"We're carrying a dead mon!" he finished off.

Two or three men came running forward to help.

"Bring him along, boys, quick; dead or alive," commanded the voice.

The human burden changed hands in a moment.

"Where's the cutter?" inquired one of the men, anxiously.

"Two hundred yards right ahead of you."

They dashed on again, urged to renewed efforts by the sound of feet gaining on them. The light swung very close now.

"Stand by, men!" commanded a voice.

"Ready all!" came the reply.

They left the rocks and stumbled through the soft, yielding sand again.

"Tumble in all! Ready men. Give way!"

The boat grated on the gravelly bottom for a moment, as two of the crew pushed her off, then felt the water under her keel, and a moment later was flying through

it under the racing stroke of eight strong men.

"Fire the light!" came another command, and instantly, up through the black, inky night flared the blue glare of a rocket, which was answered a second later by another farther down the coast. Far out in the night glimmered a tiny red spot. It was the "Willing Hand," anxious for news.

"Ping! ping!" came from the shore.

"Shoot, and be hanged!" roared the second officer, who was in charge of the boat. "Steady there, stroke; four can't hit it so fast."

They were fairly flying through the rain-lashed sea, and the red light gleamed very near now.

"Ahoy! ahoy!" hailed the second officer. "Stand ready to stow the cutter!"

"Have you got him?" came the inquiry from the big ship.

"Aye, aye, sir."

There was the sound of a woman's hysterical laugh, and a man's fervent: "Thank God!" drowned a moment later in a rush of escaping steam, as the "Willing Hand" began to blow off.

In a twinkling the boat was alongside and being hoisted. Barry, still lying unconscious, was tenderly lifted aboard. Irene and Val rushed toward him. He looked like a dead man. Many a woman would have fainted at the shock, but Irene kept her nerves.

"Is he alive, Mr. Bell?" she asked.

"Yes, miss, he's all right, I think; only fainted from loss of blood. 'Where's the surgeon?'"

He was already at Barry's side.

"Take him below," he said.

Strong, kindly hands lifted Barry up and carried him to the doctor's room.

"Shot, Mr. Bell?"

"Yes, sir, somewhere in the leg."

In a trice the surgeon had slit up Barry's drab-colored trousers, and was treating the wound.

"I shall not probe for it now," he said, "later will do."

As he was dressing the wound, Barry opened his eyes, and saw Irene standing close by him.

"Safe, Irene, safe," he murmured, and then closed them again.

And Irene, leaning over the wounded man, tenderly implanted a kiss upon his pale cheek, and answered:

"Yes, Barry, safe now; safe at last."

## CHAPTER VIII.

Extract from the London "Fashion," of October 19, 1904:

"At high noon, yesterday a fashionable wedding took place at the Church of St. Mark's. The contracting parties were Mr. Barry Reginald Stanly Strong, of Clovelly, Devonshire, and Miss Irene Dupont, daughter of the late Colonel Richard Dupont, of New York, U. S. A.

"The bride, who looked magnificent in a gown of white satin and Irish point lace, came into church on the arm of her uncle, Mr. James Willoughby, of Chicago, U. S. A., and was attended by Miss Jessie Davis (cousin of the bride) as bridesmaid.

"The bridegroom's best man was his brother, Mr. Valentine Strong, of Dayton, Surrey.

"The ceremony, which was fully choral, was attended by a large and fashionable gathering, which included the secretary of war, Lord and Lady Southerly, Sir Arthur and Lady Burton, and many other notables. After the wedding the happy couple left for Liverpool, from whence they will sail for the United States, where they intend to make an extended tour, visiting many of Mrs. Barry Strong's relatives and friends.

"In connection with the above event there is an interesting and romantic story in circulation, which, if true, would make the happy occasion even more interesting than usual.

"It is common gossip that the groom, while engaged in a hazardous and dangerous undertaking of a secret nature for the British government, was captured by the agents of a certain northern power, known to be none too friendly to this government, and after being incarcerated for nearly a year, was finally liberated, mainly through the efforts of the lady who has now so happily become his wife.

"Just how true the above statement may be we are unable to say, but it is an old adage, and one that will bear repeating in this case, that 'there is never smoke without fire.'"

THE END



### His Blind Eye

ON BOARD the flagship of Admiral Sir Hyde Parker a council of war was being held. Boats, which had conveyed the captains of the various vessels of the fleet, were moored alongside, the blue-clad sailors sitting motionless in their seats, with oars held aloft.

In the admiral's cabin an animated scene was taking place. At the head of the table sat Sir Hyde Parker, nervous and anxious; on his left was Admiral Graves, while pacing restlessly up and down the room was a small one-eyed and one-armed man. His face was bright with excitement and the stump of his lost arm twitched impatiently. On his breast glittered many decorations. The man was Horatio Nelson.

An officer at the lower end of the table was speaking.

"We must recollect, gentlemen, that not only are there the Danes, but the Swedes and Russians, too; we shall have them to contend with."

The little man stopped his walk, and turned quickly toward the speaker. Leaning over the table, he brought his fist down with a bang, almost shouting,

"The more the better; I wish there were twice as many—they will only get in each other's way. The more they are, the easier the victory; depend upon it!"

There was silence for a moment. The council was divided; some were in favor of attack, some of retreat. The commander-in-chief spoke. He was addressing the little man.

"Supposing I gave you command of the van, how many ships would you require to silence the enemy's batteries and capture his ships?"

Quick as a shot came the reply, "Ten ships of the line, and all the small craft."

Again there was silence for a space. Then Sir Hyde announced,

"You shall have twelve."

"Two too many, sir," was Nelson's answer. "Ten ships of the line and all the small vessels will be enough."

So the question was settled; the council broke up, and the future victor of Trafalgar at once repaired on board his flagship, the "St. George."

The British fleet lay before Copenhagen. It was there as England's answer to the great Napoleon's latest move—the combination of the northern nations, Denmark, Sweden and Russia.

Denmark, then one of the foremost powers of Europe, had made herself a tool of Bonaparte, and the famous armed neutrality of 1780 was resumed. Now the British fleet lay before her capital to demand an accounting.

Sir Hyde Parker, who was in command of the ships, was undoubtedly an able man, but he lacked that fearless decision which went so far toward making Nelson's greatness, and it was this contrast in the natures of the two men which brought out a most striking incident in the battle of Copenhagen.

In one of his letters to a friend at home in England, Nelson wrote: "I found the Admiral (Parker) a trifle nervous about 'dark nights and ice fields.' If there was one thing more than another that Nelson could not tolerate it was indecision. Once having made up his mind he never wavered."

Immediately upon receiving permission to attack, Nelson shifted his flag from the "St. George" to the "Elephant," a vessel of lighter draught, and consequently better suited for the work in hand. He made his preparations for the bombardment with that thoroughness which was typical of his nature, yet, despite all his care, never, perhaps, was an action fought in which unexpected accidents played so important a part.

"I will fight them just as soon as I have a fair wind," he declared, as his fleet lay at anchor waiting to attack. In front of him lay Copenhagen, protected by powerful batteries ashore and afloat. Clustered around their capital was the fleet of the Danes, twenty-one battleships, with frigates and fireships, and before them the dangerous shoals which formed so important a part of their defences.

At nine o'clock the next morning the

signal to weigh was hoisted from the "Elephant." The vessels advanced in single line, Nelson, as usual, placing his ship in the center, from which position he could best direct the movements of the others.

The "Edgar" led the way, and clearing in safety the shallows, took up her appointed position. Then occurred a series of unfortunate and unforeseen accidents. Three of the largest vessels in rapid succession went aground, and the rest, following them, as they had been directed, were in imminent danger of suffering the same fate. It was then that the genius of Nelson made itself felt. With a less resolute commander the bombardment of Copenhagen would have proved a disastrous affair for the British. But the great admiral cut the tangle with a quick stroke.

"Follow the flagship," was the signal which instantly flew from the masthead of the "Elephant," and giving the stranded ships a wide berth, the admiral took his vessel straight up channel.

The accident had deprived him of nearly a third of his force, but Nelson was not the man to turn back. With the remainder of his ships behind him, he took up his position close in, and:

"Close with the enemy," now took the place of the old signal.

"Gad, this is warm work, and this day may be the last to any of us at a moment," he remarked, as a shot flung the splinters from the mainmast in his face, "but mark you, I would not be elsewhere for worlds." How like our own great seaman, Farragut, that sounds.

Up and down the quarter deck Nelson walked, his stump of an arm twitching nervously, as it always did when he was laboring under any excitement or great strain.

A lieutenant stopped him on his aft turn.

"Sir," he reported, "No. 39 is flying from the commander-in-chief!"

"What signal is that?" demanded Nelson.

"The recall, sir."

It was Sir Hyde Parker, watching timidly from his heavy ships in the rear. Now he saw, as he thought, his subordinate going down to defeat; three of his ships out of action and the rest being battered to pieces. He wished to save the remnants while yet there was time, and from his flagship flew the big blue and white recall signal.

"The recall!" snapped Nelson, contemptuously, as he took a turn rapidly up and down the splinter-scattered deck. "What kind of a signal is that, sir? Give me the glass!"

The flag lieutenant handed it to him, and he raised it deliberately to his blind eye; then turned it on his chief's ship, the "London."

"I fail to see the signal you speak of," he remarked, coolly, as he returned the telescope to his lieutenant. He resumed his pacing, muttering angrily to himself. He stopped short on his next turn, and turned savagely on his officer.

"Retire!" he blazed out, "now hang me if I do. Fly the signal for closer action, and nail her there, do you hear, sir?"

To the masthead of the "Elephant" was nailed that signal—"Close in"—and the battered ships of England drew yet nearer to the deadly guns.

It was a bold and winning move. In an hour the Danish fire began to slacken. White flags began to show from many ships, and then it was that Nelson sent his world-renowned humane message:

"The Danes are our brothers, and I have been commanded to spare Denmark when she no longer resists."


The battle of Copenhagen was won, and Napoleon's policy had received a stunning blow.

"But I may be hanged for this day's work!" was Nelson's grim comment, as he went oversides from the "Elephant" to return to his old flagship.

It is needless to add that he was not hanged. Sir Hyde Parker, recognizing the brilliancy of his subordinate's work, did not even refer to his disregarded order. Nelson's disobedience had been justified by his success. Truly has it been said:

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## Hardy and Ornamental Plants for Hedges, Boundaries and the Like

BY IDA D. BENNETT

WHEREVER it is desired to draw a boundary line, whether between adjoining lots, the lawn proper or any other division of the home grounds, the value of shrubs that shall be both ornamental and useful is easily recognized. There are certain ornamental-leaved varieties of shrubs, as the golden-leaved spiraea, which, if kept properly trimmed, are admirable hedge plants, and various silver-edged shrubs, as the *Corchorus Argentea Variegata* or *Weigela Rosea Nana Variegata*, which not only are rich in beautiful foliage, but also reward one in early spring with a wealth of rosy bloom.

But this class of plants, beautiful and desirable as they are, are more suitable for the division of large spaces than for defining the boundaries of small grounds, especially such portions as are much in evidence from the immediate vicinity of the house.

Here the presence of flowering shrubs is more satisfactory, and very beautiful results may be obtained by the use of long lines of one variety of blossoming shrub.

It is doubtful if a more beautiful shrub, given the proper conditions for successful culture, exists for low boundaries than the azalea—Ghent and Mollis. Unfortunately it is not entirely hardy in many localities and cannot be recommended for promiscuous planting, but where it is possible to grow it successfully the effect is magnificent, and only equaled by the rhododendron. Unfortunately this, too, requires special conditions to do well and unless these are forthcoming it will be better to content one's self with plants of a less exacting nature. Generally speaking the requirements of both azaleas and rhododendrons are deep, well-drained soil of good garden loam and leaf mold. The last may be supplied from the woods or compost heaps well enriched with old, well decayed manure. They need protection from the noonday and afternoon sun, especially when in bloom, and protection from the cold, sunshine and bleak winds in winter. Good drainage is also essential, as the presence of water around their roots in winter is highly injurious. They must receive an abundance of water during summer, both during and after blooming, as unless well cared for at this period they will fail to set their bloom buds during summer, which means no blossoms the following spring.

There are, however, several entirely hardy plants which require no special care to grow and bloom, increasing in beauty from year to year. Among these the hardy *Hydrangea Paniculata Grandiflora* may be cited as a highly ornamental plant, handsome whether in bloom or simply in a state of luxuriant foliage. Unfortunately this noble plant is seldom seen in any considerable quantities, but appears rather as a specimen plant, and although fine under even isolated conditions it is only when grown in large masses or, better still, in long rows as a hedge plant, that it is seen at its best. Planted by the dozen, or better still, by the hundred, it is seen in its best estate and is a sight to rejoice the eye.

The culture of the hydrangea is simple and consists first of all of sufficient room to grow and blossom. Small two-year plants should be set five feet apart and before they are many years older it will be well to take up alternate plants and reset them, this in spite of the severe annual pruning that they must receive. Almost any good soil, so that it be sweet and wholesome and well enriched with old manure, will grow the hydrangea to perfection. During the growing season it should be abundantly supplied with water; especially is this imperative while coming into bloom.

In the fall a heavy mulch of old strawy manure should be applied to the roots, quite covering the ground beneath the plants. The coarsest of this may be raked off in the spring and the remainder worked into the soil, or the finer part may be left on the ground and more added. This is really the better way, as the hydrangea is a gross feeder and hard drinker and can scarcely have too much food or water. It is also a plant which makes a mass of roots quite near the surface, and this mulch protects the soil from drying out, keeps down the weeds and does away with the need of cultivation. Before growth begins in the spring the plants should receive a severe pruning, fully two thirds of the season's growth being cut away. Remove any weak growth or such straggly parts as may interfere with the symmetry of the plants.

The hydrangeas combine satisfactorily with other plants when it is desired to make a heavy planting of blossoming shrubs. I have grown it very successfully when a few years old and not of too rank

[CONCLUDED ON PAGE 21]



## The Housewife

### A New Way to Knit a Rug

Rugs made of common carpet rags are quite a fad at present, and there are many ways of making them, but I have never, until recently, seen one at all similar to the one I have just made.

I was so taken with one I saw at the weaver's that I came home and got out some balls of carpet rags that had long been awaiting an addition to their number

at the end, in beginning each section), knit clear across again and turn. The next row will be the second of the new section. Knit eighteen of these sections and join the first to the last with strong linen thread, so the stitches will not show.

I sewed a ball of black and white, out of figured goods, and made a border in this way. Cast on ten stitches, knit across plain, the next one purl, then two plain, next purl, repeating till the piece was long



HYDRANGEA HEDGE

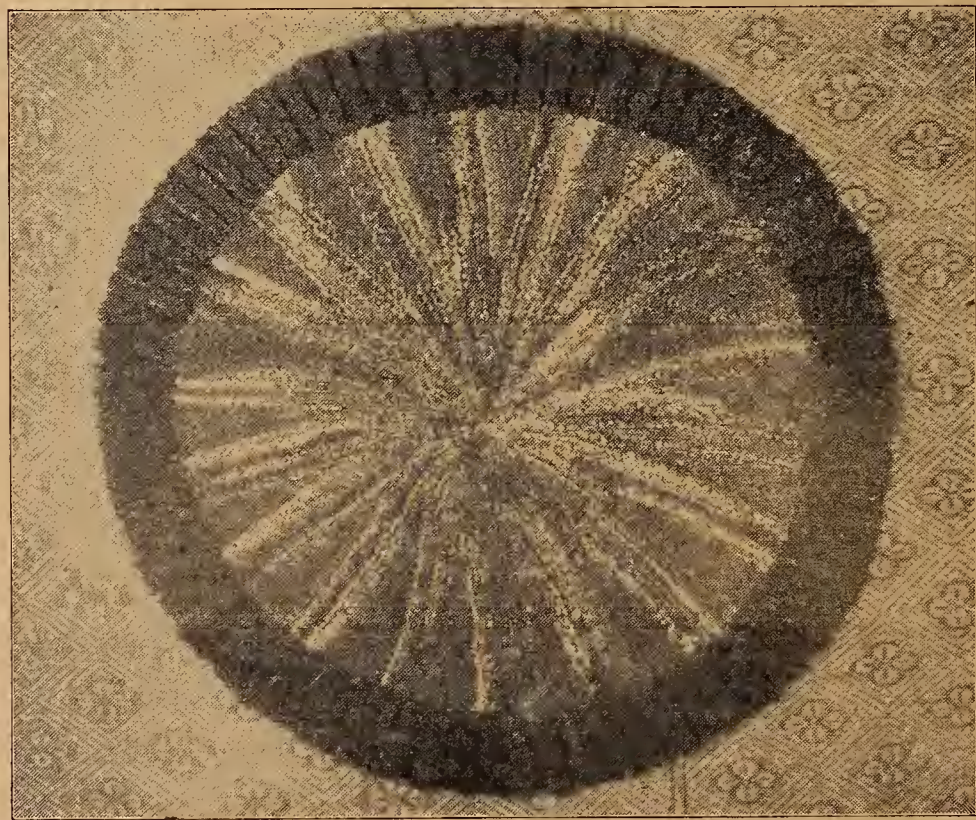
before going to the weaver, and put in all of my extra time until I had a rug of my own after the same style. For the body I used hit-and-miss in red in separate balls.

To begin I took first the hit-and-miss, and cast on thirty-three stitches—using large wooden needles. First row, knit plain and turn. Second row, knit off all but three and turn. Third row, knit clear across and turn. Fourth row, knit all but six and turn. Fifth row, same as third. Sixth row, knit all but nine and turn. Seventh row, same as third. Eighth row, knit all but twelve and turn. Ninth row, same as third. Tenth row, knit all but fifteen and turn. Eleventh row, with the red, knit same as third. Twelfth row, knit

enough to encircle the rug. This made a pretty fluted border that was just the finish needed to make a handsome rug nice enough for any floor. In knitting this edge I was careful to always take off the first stitch without knitting, of one side, which made it fit to the body better when sewing it on, without any stretching or drawing. Now I never make anything exactly like the one from which I get my idea, if there is any possible way to improve on it, so this in some respects is wholly unlike the original one, and I think an improvement on it.

Everyone who sees it exclaims over its beauty, saying it does not look at all as if made of rags.

It certainly is a very showy rug, with-



KNIT RUG

all but eighteen and turn. Thirteenth row, same as third. Fourteenth row, knit all but twenty-one and turn. Fifteenth row, same as third. Sixteenth row, knit all but twenty-four and turn. Seventeenth row, same as third. Eighteenth row, knit all but twenty-seven and turn. Nineteenth row, same as third. This finishes the first section. Now, with the hit-and-miss again, knit clear across again and turn, take off the first stitch without knitting it (do this

out being tawdry, in fact, it is the only style of knitted rug I ever admired greatly. When using the red for points of each section, there is no need of having red in the hit-and-miss. The rug measures thirty inches across and weighs about three pounds, but of course the weight depends on the fineness and quality of the rags. I have in mind several ways of varying this pattern, so that I can make a number of them without making them common. One

made of all soft woolen goods in harmonizing colors would be beautiful and not fade, as mixed goods will. A photograph does not do justice to a rag rug of any kind, but this will give some idea of the style, and all one has to do to be assured of its extreme beauty is to follow directions and see the result.

HALE COOK.

### Tried Recipes for Popular Cakes

**SPONGE CAKE**—Beat together four eggs, one cupful of "A" sugar for one half hour. Then gently but thoroughly mix one cupful of sifted flour. The above amount makes one nice-sized loaf cake; but if a large mixing bowl is used, enough for two cakes can be beaten as easily as for one. I find the cakes are not so liable to stick if the pans are greased with butter and dredged with flour immediately before pouring in the batter. Bake very nearly an hour in a moderate oven.

**SPONGE CAKE**—Six eggs, three cupfuls of sugar, four cupfuls of flour, two teaspoonfuls of baking powder, one cupful of cold water and a pinch of salt, one teaspoonful of flavoring; beat eggs and sugar together five minutes, add flour sifted with salt and baking powder, water and extract. Bake in quick, steady oven about thirty-five minutes. Two thirds of this recipe makes a large layer cake.

**SPONGE CAKE**—Two cupfuls of sugar, two cupfuls of flour, five eggs, one half of a cupful of cold water, three teaspoonfuls of baking powder. Beat the yolks and sugar to a cream. Then add the water, then the flour, then the baking powder. Last of all the whites of all well beaten.

**MARBLE CAKE**—Light part, one and one half cupfuls of white sugar, one half cupful of butter, one half cupful of sweet milk, one teaspoonful of soda, one teaspoonful of cream of tartar, whites of four eggs, two and one half cupfuls of flour. Dark part, one cupful of brown sugar, one half cupful of molasses, one half cupful of butter, one half cupful of sour milk, one half teaspoonful of soda, one teaspoonful of cream of tartar, two and one half cupfuls of flour, yolks of four eggs, one half tablespoonful each of cloves, allspice, cinnamon and nutmeg, ground. When each part is ready drop a spoonful of dark, then of light, in dish in which it is to be baked. Each layer the same.

**SPICE CAKE**—Two cupfuls of brown sugar, one half cupful of butter, two and one half cupfuls of flour, one cupful of sour milk, one teaspoonful of soda, one teaspoonful of ground cloves, one half teaspoonful each of ground allspice and mustard, two teaspoonfuls of cinnamon.

**MYRTLE CAKE**—Beat together one cupful of sugar, one egg, one rounded tablespoonful of butter, two thirds of a cupful of cold water, one and one half cupfuls of sifted flour, two teaspoonfuls of baking powder. Bake in old-fashioned tin pans. Iced in pan and cut in squares.

**MOLASSES CAKE**—One cupful of sugar, one cupful of baking molasses, one half cupful of butter and lard mixed, one cupful of sour cream, two eggs, one teaspoonful of ginger, one teaspoonful of soda dissolved in one teaspoonful of hot water, four cupfuls of flour, a little salt.

**SPICED MOUNTAIN CAKE**—Two cupfuls of sugar, one cupful of butter, one cupful of sweet milk, yolks of five eggs, whites of three eggs, three cupfuls of flour, three teaspoonfuls of baking powder, one teaspoonful of cinnamon, one half of a nutmeg, one teaspoonful of cloves. When cold spread with the icing made from the other two eggs. **ICING**—Two cupfuls of sugar, boil and pour over the whites and beat until stiff enough.

### Croquettes

**POTATO CROQUETTES**—One cupful of potatoes run through a sieve, yolk of one egg well beaten, one onion run through a sieve, one tablespoonful of chopped parsley, one tablespoonful of butter, one half of a teaspoonful of salt, a pinch of cayenne pepper, one grated nutmeg. Set on stove in same pan until it dries from edges, then set away to cool. Mold in round cakes, dip in whites of eggs well beaten, then in cracker crumbs and fry like doughnuts. Serve hot.

**CHICKEN CROQUETTES**—Two pounds of cold chicken, or one can of boned, one cupful of mashed potatoes, made soft with milk, two eggs, one half of a cupful of gravy, or drawn butter, salt and pepper to taste. Thicken with cracker dust. Chop the chicken and milk with gravy and seasoning, beat in eggs and potatoes, put in buttered pan and stir until hot. Let the mixture cool and make into small cakes, roll in cracker dust and fry in lard.

**SALMON CROQUETTES**—To one can of salmon add six eggs, one cupful of mashed potatoes, one cupful of bread crumbs, season with salt and pepper. Mold in patties and roll in cracker dust and fry in hot fat.



## The Housewife

Lessons Learned From Trained Nurses  
BY HILDA RICHMOND

[CONTINUED FROM LAST ISSUE]

**D**URING even the darkest hours, when the patient wavers between life and death, the trained nurse never "loses her head." Of course, the fact that she is not related to the patient helps her to keep a cheerful countenance, but she knows that a patient is very susceptible to the changes in the faces of those about him and many times loses hope when tears and gloom prevail. For the sake of a valuable life, learn to keep your emotions to yourself until absence from the sick room gives you a chance to relieve your feelings by a good cry. And the nurse rarely permits herself to reach the point where sheer exhaustion reduces her to a state bordering on hysterics, either. She goes out for a few minutes each day in the open air, rests when her patient rests, and saves her strength in every way possible.

The trained nurse obeys the doctor's orders without questioning, knowing that he is responsible for the life of the sick person and is anxious that nothing shall re-

of listening to "sure cures" would be saved if friends did not tell every detail of the doctor's orders. Discretion is a fine thing in all departments of life, but doubly so in the sick chamber.

The trained nurse also impresses upon the minds of the family the necessity of regular meals and good food for all during the dark days by eating three good meals herself, with sometimes a lunch or a bowl of broth between. The amateur nurse is apt to snatch a bite of anything whenever she has time, and then wonder why her strength gives out just at the time she needs it most. More than the patient during the dark days the nurse needs wholesome food and plenty of it to keep her in good health and spirits for her hard work. A cup of hot cocoa, a bowl of clear broth, tea and toast, or any one of a dozen easily prepared articles will help through a trying night or day, and enable the nurse to carefully watch the patient for alarming symptoms. It is all-important that the nurse does not break down, and good food is one of the safeguards against this peril.

It is not selfishness that makes the nurse protect herself in the way of food and rest, and the amateur who recklessly flings away her strength under the impression that she is self-sacrificing simply needs to use her common sense in her work. It is no kindness to the patient to be so run down as to be unable to give him proper care. The women who boast that they "have not had their clothes off for three weeks" have a great deal to learn before they may be termed good nurses.

[TO BE CONTINUED NEXT ISSUE]

### Medicine Case

This medicine case is a very handy little article to either man or woman in traveling or sick room. It is made of brown leather or linen, thirteen inches long and seven wide. Punch six holes equal distances apart and one inch from under edge, then another row two inches below; fold leather back four inches and punch holes to correspond with ones you have made. Start your lacing at upper, right-hand corner, lacing backward and forward with laces one eighth of an inch wide to hold five one-ounce bottles. After lacing fit bottles in smoothly, then fasten snap on top edge and middle of lower part and paint or burn some pretty design around edge, and put monogram in center.

MARGARET E. WARDER.

### Skirt Hanger

The little hangers ordinarily used for hanging men's clothes make most satisfactory skirt hangers. If the band of the skirt is folded and held very tight when putting on the hanger the skirt will not sag, but will keep its shape better than when in another hanger. To cover the



hanger requires two yards of inch-wide ribbon. Wind the ribbon very tight around the wire and fasten securely at each end. Use the remaining ribbon for the bows, tying the ribbon securely around the pins. If bows are desired on both sides of the pins an extra yard of ribbon is necessary.

M. W.

### To Whitewash a Ceiling

Procure two cents' worth of Paris white and two cents' worth of powder blue. Scald it over night with a quart of boiling water, in the morning add a quart of skim milk, which makes it work beautifully smooth, leaving no streaks. Mix well. It is not necessary to have any particular method in applying it so long as there are no bare patches left and the ceiling is equally covered. Should any be splashed on the wall paper, there will be no difficulty in rubbing it off with a duster.

### Popular Puddings

**SNOW PUDDING**—One half box of gelatine, one and one half pints of boiling water poured over the gelatine; stir until it is all dissolved; two cupfuls of "A" sugar and whites of four eggs beaten to a stiff froth. Then put them into the gelatine and add a teaspoonful of vanilla.

**CORN PUDDING**—One pint of grated corn, one pint of rich milk, one tablespoonful

of sugar, one tablespoonful of cornstarch, butter size of walnut, pepper and salt to taste, last of all add three eggs well beaten. Bake three fourths of an hour.

**SUET PUDDING**—One cupful of chopped suet, one cupful of molasses, one cupful of raisins, from two to three cupfuls of flour, one cupful of sour milk, one teaspoonful of soda, one teaspoonful of cloves and cinnamon each, one nutmeg. Steam three hours. To be eaten with cream and sugar, or the following sauce: One pint of boiling water, three fourths of a cupful of sugar, one tablespoonful of butter, one small tablespoonful of cornstarch, one half teaspoonful of vanilla.

**VANILLA SNOW**—Take one half a box of gelatine, put in a large bowl, pour on it one half pint of boiling water. It will dissolve in a few minutes. While still hot, put in one and one half cupfuls of granulated sugar. Stir for a few minutes, then add the whites of four eggs, one half teaspoonful of vanilla. Beat all together for one half or three fourths of an hour. Pour in a dish and stand in a cool place. Serve with cream and sugar. It can be kept two or three days if kept in a cool place.

**ENGLISH PLUM PUDDING**—One large cupful of suet, two small cupfuls of sugar, one half of a cupful of syrup, three cupfuls of flour, one cupful of currants, one cupful of raisins, three eggs, one half of a teaspoonful of cloves, cinnamon and nutmeg. Mix into thick batter with milk or water, one teaspoonful of baking soda; steam from three to five hours.

**SNOW PUDDING**—The yolks of three eggs, two teaspoonfuls of cornstarch, one pint of milk, sugar to taste. Let this boil, add vanilla when cold. Dissolve two tablespoonfuls of cornstarch in water, then pour one pint of boiling water over this and add three tablespoonfuls of sugar. Beat the whites of four eggs to a froth and add the other.

**PEACH PUDDING**—One pint of sliced peaches. Make a batter of one heaping cupful of flour, one teaspoonful of baking powder, a pinch of salt, one cupful of sugar, one cupful of sweet milk, one egg beaten light, one tablespoonful of melted butter. Pour batter over peaches and bake in hot oven half an hour.

**CHERRY DUMPLINGS**—Make a rich dough, roll about as thin as pie crust, cut in strips about three inches wide. Spread with hot butter, then take cherries and spread over with sugar and roll up as for jelly cake, pinch ends together to keep fruit in. Bake about half an hour and serve with rich sweetened milk.

**PUDDING**—Two eggs well beaten, one large cupful of new milk, a small pinch of salt, a lump of butter size of a walnut, two teaspoonfuls baking powder in enough flour to make as stiff as cake, one cupful of fruit. Put layer of butter an inch thick, then fruit and so on till you have as many layers as you want. Grease the bucket and set this in boiling water and let steam one and three quarter hours.

**CHERRY PUDDING**—Two eggs, one half of a cupful of sugar, one cupful of milk, two and one half cupfuls of flour, two teaspoonfuls of baking powder, one pint of sour cherries, a little salt. Bake thirty minutes and serve with milk or cream.

**HUCKLEBERRY PUDDING**—One cupful of milk, two eggs, two tablespoonfuls of sugar, two tablespoonfuls of melted butter, three teaspoonfuls of baking powder, flour like a cake, bake thirty minutes, one pint of berries, three cupfuls of flour.

**COTTAGE PUDDING**—One cupful of milk, one half cupful of sugar, one egg, one tablespoonful of melted butter, one tablespoonful of baking powder, one pint of flour. Beat eggs and sugar to a cream, add a little milk, one half cupful of flour, and butter and rest of flour and baking powder and beat thoroughly. To make a sauce use one cupful of sugar, one tablespoonful of melted butter, one tablespoonful of flour, flavor to taste, and add one pint of boiling water; boil all together fifteen minutes and eat warm.

**BREAD PUDDING**—One quart of new milk, two eggs, three tablespoonfuls of sugar, a pinch of salt, one teaspoonful of vanilla, beat white of one egg light and stir in. Spread bread with butter and cut in small pieces enough to cover top. Bake quick.

### To Preserve Polish on Plate

Among the minor annoyances of house-keeping is the one that, however carefully plate may be cleaned before putting it away, in the course of a week or so it becomes dull and tarnished. This may be avoided by the following simple means: After thoroughly cleansing the plate and polishing it with whiting, wrap up each piece in tinfoil, such as is used for wrapping up chocolate, tea, etc., then put it in a dry cupboard or drawer.

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## Some Old Autograph-Book Rhymes

I do not think that the autograph book is as much in vogue among young people now as it was "in my young day." Then the autograph book was very popular, and it gave rise to some very original rhymes, few of which rose to the dignity of poetry. Something more than a mere signature was expected of those honored by a request to write in one's autograph book, and "something original" was always preferable to lines copied from a book of prose or poetry, although it was rather expected that old people would write something from the Bible in the autograph book.

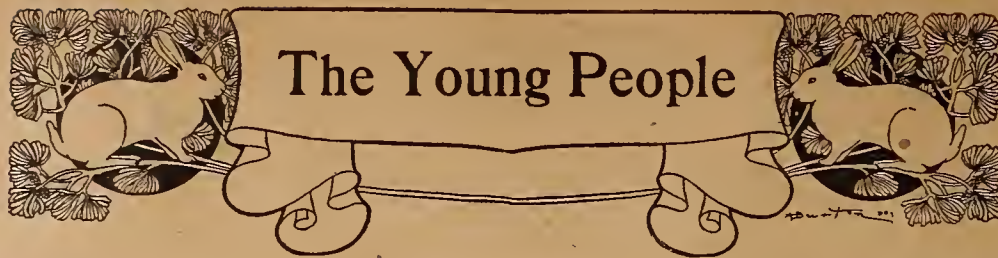
I have before me one of these old-time autograph books, and its pages have caused me to hark back to the days when I, too, had an autograph book in which there were rhymes quite as original as those found in the book from which I am going to quote. Nearly all of the old-time autograph books had in them this couplet:

Remember me when this you see,  
Though many miles apart we be.

The lapse of years has put many miles between you and the writer of that familiar couplet, and perhaps you have quite forgotten him or her in spite of this plea for remembrance. It may be that you have arrived at an age when the following couplet is apropos:

When you get old, and cannot see,  
Put on your specs and think of me.

The "specs" seemed so far away in the days when the friends of your youth wrote those lines that it seemed almost



Life is real! Life is earnest!  
And the grave is not its goal,  
Dust thou art, to dust returnest  
Was not spoken of the soul.

Possibly the following good wish was in your own autograph book, and you may have realized it to the full:

May joy attend you throughout all your life,  
And heaven send you a very good wife.

Another young poet tunes his lyre and produces the following effusion for an old-time autograph book:

On this fair page my name I'll write  
In ink of black on paper white.  
A favor I do ask of thee,  
'Tis that you will remember me.  
Old ocean's waves may separate  
You and me, my old schoolmate;  
But no width of land or roll of sea,  
Can cause me to e'er forget thee.

Eternal friendship is also expressed in the following lines taken from an autograph book yellow with age:

The years may come and the years may go,  
The tides may ebb and the tides may flow;  
The earth on its axis may roll and roll,

let written in many autograph books was this:

Count that day lost whose low descending  
sun  
Views from thy hand no noble action done.

An appeal for undying friendship and remembrance is found in these lines:

Shall sweet friendships be forgot,  
When you and I shall sever?  
Shall fond hopes be remembered not?  
It must not be! no! never!

But when to mem'ry's page you turn,  
And view with tearful eye,  
I know that sad, sad thoughts will burn  
As heaves the weary sigh.

But, dear friend, let us falter not,  
If we must bid adieu,  
But let us bravely struggle on,  
And fight life's battle through.

MANTON MARLOWE.

## The Peanut Party

Something new for a children's party is always eagerly sought. The peanut party may not be entirely new, but it is certainly entertaining. If there are more than ten or twelve children, it is hardly advisable, for it is apt to become confusing, but if there are not more than this number these peanut games will be quite satisfactory. First, a leader should be chosen, whose duty it is to select the contestants, keep their record, decide any disputes that may arise and award the prizes. Here are some suggestions for the games.

Give each player ten peanuts, and at a signal from the leader they begin to shell them, taking off the inner skin as well as the shell. The one who finishes first wins. If a nut breaks into more than its two

large enough for the peanut to go through. Let each contestant take a turn at holding the peanut by the end of the thread about a foot above the mouth of the vase and dropping it in. If more than one succeeds repeat the contest until there is only one.

Place peanuts over the floor about a foot apart and let the contestants take turns going from one to the other and back again. The one who does this in the least time without stepping on any of the peanuts wins the prize.

## A Riddle

BY ALICE E. ALLEN

I know of something much like me,  
It chatters at its play,  
It's just as noisy as can be,  
It loves to run away.

It has a pretty cosy bed,  
And on a winter night,  
It has a blanket o'er it spread,  
So soft and warm and white.

My riddle you can never guess?  
Come here and have a look.  
It's hiding in the hollow—yes,  
It is the little brook.

## When Puss Was Too Late

A very beautiful cat, carried in infancy from some remote village in the Apennines, was given to the Italian captain of an oil-tank steamer which ran between Savona and Point Breeze, Philadelphia. In the course of time she presented the ship with a family of kittens, who were less than a month old when the Philadelphia docks were reached. Like other sailors, pussy went ashore, and when the "Bayonne" was loaded and ready to depart, could not be found. Search was made in vain about the wharfs; and Captain Hugo was compelled not only to sail without her, but to take charge of her abandoned infants.

Two days later the prodigal came back. Repentant and dismayed, she visited every steamer in the docks. Convinced that she was both homeless and kittenless, she took up her quarters in a watch box, and patiently awaited Captain Hugo's return. Scores of barques arrived, and were each in turn anxiously inspected, and still she bravely kept her post.



SHEP AND COLLIE

impossible that they should ever become a reality, but now they are a necessity and your youth seems as far in the past as the "specs" were in the future when you read those lines for the first time.

Perhaps the boy or girl friend of your youth who wrote the following lines in your book has long been waiting for you in the land of the leal:

My dear young friend:

May thy pathway in life ever be bright,  
And so will it be if you do right.  
And when life's journey is at an end,  
May we meet above, my dear young friend.

The spelling in some of the autograph books was not above criticism. Here is a "sentiment" copied verbatim from an old autograph book, illustrating the fact that some of the would-be poets needed to "brush up" on their orthography:

O think of me when I ain't heer,  
O think of me, my friend so deer,  
You think of me and I'll think of you,  
And to each other we'll be trew.

Grammatical lapses were not uncommon in the original lines contributed to some autograph books. Here is an amusing instance in point:

Though we must part and say good-by,  
I hope you'll always remember I.

Another book contained the following rendition of Longfellow's famous lines:

And I may travel from pole to pole;  
Youth may come and youth may wane,  
But in my heart will be your name.

The humorist has ever been abroad in the land to add to the gayety of nations, and some of his effusions are sure to be found in all old-time autograph books. Here is one of his attempts at wit:

Will I write in your book?  
I ruther think that I will,  
And when you look at this page,  
Just think of your friend Bill.

A once popular and very sensible coup-



TAKING SIPS WITH THE "OLD LADY"

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natural divisions, another one must be shelled in its place.

Put a number of peanuts into a dish and let the contestants guess how many it contains, the prize going to the one who guesses nearest to the correct number.

See which one of the contestants is able to hold the greatest number of peanuts in his left hand without using the right hand to put them there.

Fasten a large hat pin upright in the floor and let each contestant throw five peanuts at it. The one whose peanut goes nearest the pin and remains there wins.

Tie a long thread to a peanut and place on the floor a vase with a mouth just

At last the "Bayonne" was sighted, and there was no need this time to hunt for the cat. There she stood, quivering with agitation, on the extreme edge of the wharf as the craft plied its way along the river. The captain's big black dog, pussy's old friend and companion, barked his furious welcome from the deck. The sound increased her excitement, and when the steamer was still twelve feet from the docks she cleared with flying leap the intervening space, and, 'mid the cheers of the crew and onlookers, rapidly made her way straight to the captain's cabin, where she had left her kittens two months before.



## Hardy and Ornamental Plants for Hedges, Boundaries and the Like

(CONTINUED FROM PAGE 18)

a growth in combination with the crimson-eyed hibiscus, as the hibiscus will, under fairly favorable conditions, attain a height of six feet. When in bloom it easily tops a hydrangea of ordinary height, and where there is room to plant a row of some good, richly colored geraniums in front of the hydrangeas the effect is excellent.

The Weiglias make beautiful spring blooming hedges, but have the disadvantage of blooming at a time when least appreciated and remaining rather unornamental the remainder of the summer. For that reason they should occupy a less conspicuous position.

Probably the most satisfactory hedge plants from an artistic point of view are those plants that are in bloom throughout the greater part of the summer, but obviously we must go outside of the hardy perennials for perpetual blooms and have recourse to the tender greenhouse perennials and bedding plants. Of these no more beautiful example than the Chinese hibiscus can be found. These have truly been favored of the gods, for they combine magnificence of bloom with exceedingly handsome foliage. The leaves are large, waxy and glossy and of a rich tropical appearance. Some of the varieties have immense double crimson flowers that are truly magnificent. Others show a lovely rose color, or blush, salmon and pink shades predominate, and there is a fine yellow both in single and double varieties. Their culture requires a knowledge of their peculiarities to be perfectly successful. They should have a soil composed of leaf mold, sharp sand and old, well-rotted manure to succeed well, and an abundance of sunshine and water during the growing and blooming period. Grown in too much shade they are very apt to go largely to foliage, and again they make root growth at the expense of blossoms and need to be root-pruned; for this reason they will sometimes give better results if planted in large pots and sunk in the ground where they are wanted to bloom. Treated thus they are sure to give an abundance of bloom through the summer, and anything more royally beautiful than a hedge of these tropical-appearing plants it would be hard to imagine.

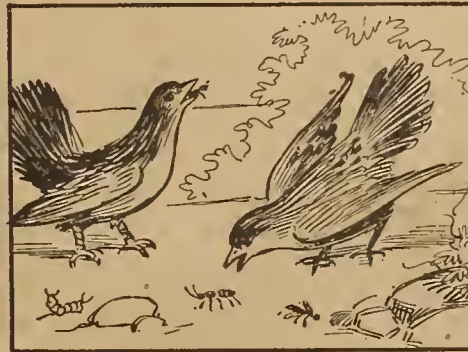
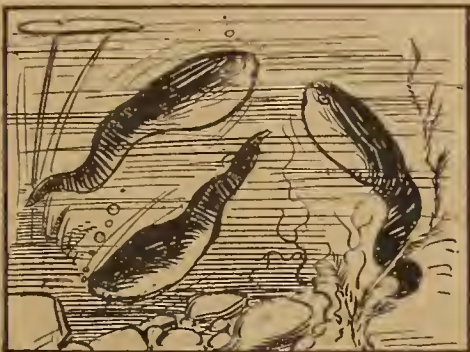
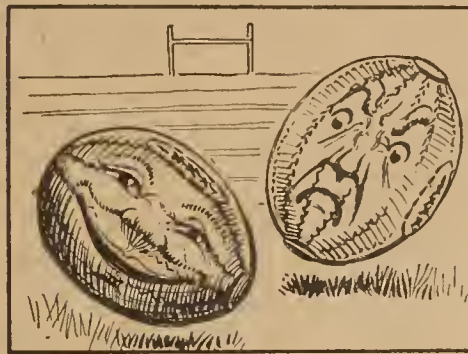
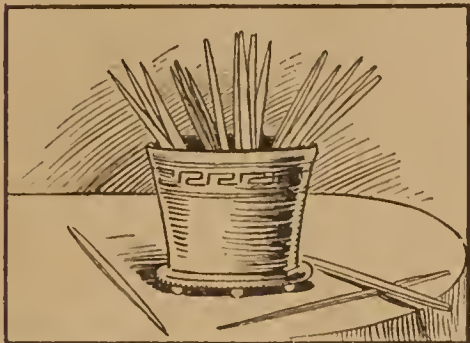
Another fine plant for hedge planting and one that will grow and thrive with far less attention than the hibiscus, is the lantana. These fine plants may be had in a variety of colors, pure white, white with a yellow eye, orange red, scarlet and yellow. They may be bought of the florist in the spring at the time they are wanted or, and this is the more interesting way, they may be started from seed in the house. The seeds of the lantana are both curious and interesting. They consist of a little nut or kernel which contains more than one section of meat, so that when planted it is not unusual to get more than one plant from the same seed. They should be started in February in boxes of fine soil in the house, first soaking the seed twenty-four hours in warm water. When the hotbeds are started in the spring the little plants should be transplanted into them, and when they have made some growth they may be potted off into three-inch pots, and repotted as the pots fill with roots until the weather is warm enough for planting out in the open ground, which will be about the latter part of May in the Northern states. Give abundance of water and soil as rich as possible. The lantana is a wonderful bloomer under favorable circumstances and makes a most robust growth, the diameter usually exceeding the height, making a very symmetrical plant. I have grown plants from March-sown seeds that by midsummer were three feet in diameter and so loaded with bloom that it was hopeless to try to count them.

Among the hardy shrubs the shrubby clematis should not be ignored. They form erect, bushy plants from two to three feet high and are covered for a period of two months with their showy flowers of lavender, blue and white, and by judicious selection they may be kept in bloom the greater part of the summer. Clematis recta is the earliest blooming of the species and may be had in flower during June and July. There is a grand new double-flowered form of this variety with which I am not personally acquainted, but it is well spoken of by the florists. Clematis integrifolia produces large deep blue flowers during July and August, while Davidiana, the best known of the genus, produces its handsome bell-shaped flowers through August and well into September, thus extending the period of bloom from early June till late September. Any well-enriched garden soil with good drainage will grow the dwarf clematis to perfection, and by alternating the above varieties in the row a very fine effect may be attained.

As scarlet and lavender combine most artistically, when a brilliant effect is desired it may be secured by planting the



The Nicknames of Inhabitants of Six States of the Union are Represented Below



Answer to Puzzle in the March 15th issue: Porkopolis, Cincinnati; City of Straits, Detroit; Railroad City, Indianapolis; The Hub, Boston; Quaker City, Philadelphia; Flower City, Springfield, Illinois.

seeds of the phlox drummondii in front of the clematis, using the dwarf fireball or other good scarlet variety. Low-growing scarlet geranium may also be employed with excellent effect, indeed there are few places where these sturdy bedding plants may not be used to advantage.

## For Busy Hands

A very good joint, when one of the pieces of wood is to be united to the other at some distance from its end, is termed a "halved dovetail." You will see this shown in Fig. 5.

To set this out—namely to draw the line preparatory to cutting—proceed with the upper piece of wood as though it were an ordinary halved joint. Cut it out; then saw through the base of the tongue on two sides to the extent of one half inch, and shave the tongue down to meet the bottom of such saw cuts, thus forming the dovetail. Next place the dovetail on the second piece of wood, one being perpendicular to the other, and trace its shape with pencil. With the square, continue these lines downward for a distance equal to the thickness of the dovetail; join the ends, and knock out the wood with chisel and hammer or mallet. If the measurements are correct and are faithfully followed by the saw, the dovetail should fit the recess exactly.

One of the most useful and perfect joints is seen in Fig. 6—the "tenon and mortise." But it must be very carefully executed indeed, for a little error will destroy its character of being one of the strongest joinings in carpentry. So measure with exactness and use your tools so as to have rather too tight a fit than too loose.

Beginning with the piece of wood which is to have its end tenoned, first plane down, and make all sides and the extremity perfectly square. Then, with the aid of the square draw a pencil line on one side three inches from the end. (The pieces of wood are supposed to be similar in measurement to those just adopted—namely, three inches by two inches. Carry this line round the other sides (a, b, c, d, Fig. 7). This is the "shoulder" line.

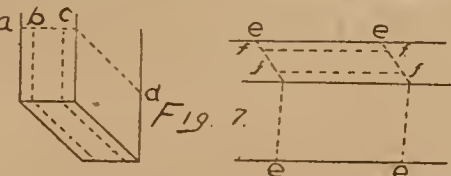
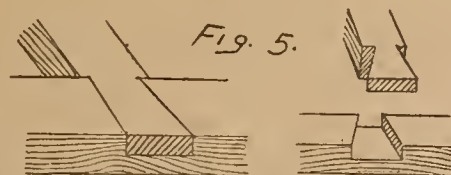
On the line (a) measure the distance (a, b), which should be five eighths of an inch. Mark this same measurement at the end of the piece of wood, and draw a line between the two points. Draw another parallel with it also five eighths of an inch from the opposite edge of the side, beginning at c; and continue these lines over the end and up to the shoulder line on the other side of the wood.

The tenon saw then cuts through the

shoulder line, crossing the wider face of the timber till the tenon lines (c and d) are reached, when they are in turn sawed through. But don't saw through the lines exactly; keep outside them, so that when the wood is removed the lines are just visible on the tenon.

Now let us tackle the mortise. Plane and square the wood. Place your square on one of the two-inch sides, and draw a couple of lines across at a distance equal to the width of the tenon—in this case three inches. Carry these lines round the wood (e e, Fig. 7). Then draw a couple more lines on the top surface of the wood to join the first five eighths of an inch from each side (ffff, Fig. 7). Repeat the operation on the opposite side.

To cut out, place a chisel of the width of the mortise, between the f lines and the middle, and, using the mallet, take out a V-shaped bit of the wood. Then put the tool one fourth of an inch nearer one end and cut again; and so proceed till the extremity of the mortise is reached, when the other half can be treated in like manner.



The bevel of the chisel must always face the middle. When the wood is half cut through, the opposite face should be tackled. Finally, the sides of the mortise are nicely smoothed down, and the tenon is hammered in and secured by a wooden peg. In some cases the tenon should not penetrate the wood and therefore the mortise can be worked from one side only; but this modification does not require any additional explanation.—Melbourne Leader.

## The Future of Electricity

Thomas A. Edison, in an interview with James Creelman for the New York "World," recently talked interestingly upon the subject of the future of electricity.

"The first great change in the production of electricity will abolish the carrying of coal for that purpose," said he. "Instead of digging gross material out of the earth, loading it on cars and carrying it say five hundred miles, there to put it under a boiler, burn it, and so get power, we shall set up plants at the mouths of the mines, generate the power there and transmit it wherever it is needed by copper wires.

"It is preposterous to keep on putting the coal mines on wheels. It is too clumsy. It is too costly. There is no necessity for it.

"We must eliminate the railroad altogether from this problem. What's the use of it? We don't want the coal anyhow. It does us no good to look at it. What we want is the resultant, the utmost energy that can be produced. And there is no sense in carrying around millions of tons of raw material like coal when we can get its product delivered to us by wire.

"Everything points to the fact that in the near future electricity will be produced for general consumption in great power houses at the mouths of the coal pits. That is the logical and common-sense outcome of present events.

"We had a hard time to get the world to change from horse power to electric power in street transportation. The street-railway people said that it would cost too much. They didn't see any reason why they should make a change when they were doing so well.

"More than a quarter of a century ago I built about three miles of an electric railway at my place at Menlo Park. It was a good electric railway and worked well. I supposed, of course, that it would appeal to men. Well, Henry Villard came over to visit me and I showed him the railway. I explained its advantages over the horse-car system. It was better from every point of view.

"I offered to sell that electric railway and all my patents and rights of every kind for exactly the amount of money it had cost me to produce it—just forty-two thousand dollars.

"Mr. Villard got a lot of capitalists together, some of the brainiest and most experienced men in Wall Street, and I explained the thing to them, and they talked it all over very carefully and very solemnly, and then, what do you think?—they refused to touch electric transportation in any shape or form, on the ground that there was nothing in the idea of an electric railway, absolutely no future for it.

"Another thing in the future: Wireless telegraphy will enable us to reach any ship in any sea. That is a certainty.

"Not only will electric power be developed at and distributed from the coal mines in the future, but all the water power in the world will be used for the production of electricity. That movement has begun and is advancing rapidly. In California, where men have nerve enough to overcome habit, they are transmitting electric power two hundred and seventy-five miles by wire and running street cars and lighting the cities by it. That is the sort of spirit that will wake the world up one of these days. I wish that the spirit of California would spread everywhere.

"Go down South and you will find water power being turned into electricity for mills in all directions.

"There are millions of horse power to be picked up in the waters of the United States for practically a song. It is one of the world's greatest opportunities, this chance to convert water power into electricity and distribute it to the points where it is needed.

"When you come to think that one horse power is equal to twenty-five men, and that water power changed into electrical energy is practically perpetual—the investment being simply for the original plant—you get some idea of the importance of the changes that the world is bound to see, changes that have already begun and are well under way.

"I have tried hard to get at the secret through which the energy stored in coal must be transformed into electricity. It is too much for me. I am stumped. I don't know enough. But the man who does know enough will appear before long."

\*

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"Why not?"

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## Of Curious Interest



### A Horizontal Willow

**T**HIS well-developed willow tree is growing from the bank of a river in nearly a horizontal position. At first sight it has the appearance of having been blown over, with its top resting on a neighboring tree, but closer inspection shows that it is firmly supported by its own roots, no part of it touching another tree. The small boys of the neighborhood find the great length of horizontal trunk an ideal playground, but even with crowds of boys climbing over it, the tree remains firmly supported by its roots springing from the moist soil of the river bank.

PHEBE WESTCOTT HUMPHREYS.

### Test of a Perfect Foot

A test for the perfect foot is made as follows: Dip your feet in water or flour, then walk quickly and naturally across a bare floor. Now turn and examine the tracks made. If they show the outer rim

the paint work, their hammocks on their shoulders, and their faces presenting a most woeful picture. For this punishment is not so trivial as it looks, says London "Tit-Bits." The hammock is not very heavy, it is true, but after an hour or so it drags on one's shoulder like lead. Besides, it is far from pleasant to stare fixedly at a square foot of gray painted woodwork for sixty minutes at a stretch. Jack would much prefer to do a few days "Ten A" or to have his leave "jambled."

Spitting upon the deck of a man-o-war is strictly prohibited. As soon as the bugler has sounded the "Stand Easy" spittoons are placed at intervals along the deck for the use of the sailors, and woe betide the tar who ignores the presence of these tubs and expectorates about the spotless deck. On many vessels a wide belt is kept, and this the man who departs from the regulations is compelled to wear upon his person, and is thus subjected to the ridicule of his shipmates. He is given an opportunity of retrieving his character, however. He is permitted to walk the

carefully bailing out spoonful after spoonful of water, and as carefully depositing the fluid in a large bucket at his side.

A punishment frequently employed is that of setting the defaulter to walk slowly backward and forward along the deck, nursing in his arms a six-inch projectile (weighing a little over one hundred pounds). After a quarter of an hour or so of this beneficial "exercise" the unhappy victim is glad to drop the load and rub his aching limbs. At the same time he probably makes a solemn mental resolve never to repeat the offence for which he has been "awarded" this dire penance.

An old naval captain—one of the old, old school—was at one time sadly addicted to stammering. He could not utter a simple sentence without a great amount of spluttering and hesitation. This was one day too much for an intrepid sailor, who was receiving an order from the captain in that official's usual halting manner, and he unfortunately burst into an uncontrollable fit of laughter. This rash laugh he bitterly repented. Captain — was a disciple of the homœopathic system. Making Jack stand upon the fore bridge, in full view of the entire ship's crew, the officer commanded his victim to laugh continuously for an hour and a half. This he was compelled to do, though the pitiful expression of his weather-beaten, sunburnt visage denoted anything but a happy and contented frame of mind.

Whistling in forbidden parts of the ship has often been punished in a similar manner. The offender has been obliged to whistle his loudest, under the eagle eye of the commander, until poor Jack's lips have become so parched and cracked that he could not produce another note.

### Married His Mother-in-Law

A man aged fifty-seven years, of Centerville, Washington, says the Portland "Oregonian," was married to his mother-in-law, a woman of seventy-seven years. A daughter of the latter, a woman of forty-seven years, was bridesmaid, and a frisky bachelor of eighty years was best man.

### Horse Extinguished Fire

We came very nearly having a great conflagration in Laudeville one day not long ago. A young man rode to the store on horseback; some one noticed the horse rolling with the saddle, and on going out to investigate he found the blanket under the saddle was burning. It is supposed that he was smoking and a spark set the blanket on fire.—Dubuque (Iowa) Times.

### Why Corn Pops

When the grains of maize or Indian corn are gently roasted they burst with



A GROWING HORIZONTAL WILLOW

of the foot straight, but the inner line breaking, leaving a strong heel mark and a strong impression of the ball of the foot, with a break in the line on the inner side where the hollow of the foot escapes the floor, your foot is a strong, well arched one and you should use your best endeavors to keep it so by wearing good and well-made shoe leather.

If, on the other hand, the inner border shows a continuous line, as does the outer, all is not well and measures should be taken to alleviate that which is wrong, either in the shoe leather worn or in the habit of walking.

### The Passing of the Old Log Cabin

The contributor who has sent us the picture of the old log cabin shown on this page says that "down here in Kentucky the log cabin will soon be a thing of the past. Formerly a log cabin was to be seen on nearly every farm in these parts, but each year the number grows less, the modern frame and brick structures taking their place."

### America's Population in Siam

The most favored man in the kingdom of Siam is an American named Strobel. He is the king's counsel, and his majesty takes no important step without consulting Mr. Strobel. Americans are in particularly high favor in that quaint country, anyway, for the reason that the United States government returned to China a large portion of the indemnity awarded it for damages arising out of the Boxer troubles. This is the first time on record that a white race was ever known to give back anything taken from a yellow one, and such unwonted magnanimity has given the Yankee a position that no Europeans enjoy.

### Curious Naval Punishment

Naval officers do not always mete out to the men the punishments laid down in the king's regulations. They frequently adopt punishments of their own invention which prove most effective in preventing the recurrence of offences. These punishments are often of a very curious and even ludicrous nature.

It is an everyday occurrence to see half a dozen sailors lined up on deck facing

effectively prevents the men from violating the regulations.

Were a civilian given two large wooden buckets one empty and the other full of water, and told to bail the liquid from the full tub into the empty vessel with a small spoon, he would consider the order to be that of a madman, or a revival of ancient fairy lore. Yet this punishment has on several occasions been meted out to refractory "sea dogs." Nothing is more amusing than to see a weather-beaten sailor

a pop and turn inside out. They are then known as pop corn. This popping is due to the evaporation of the oil contained in the kernel. Ordinarily wheat does not pop so readily, because the outer portion of the kernel is more porous, and thus permits the escape of the oil as it evaporates. In the case of pop corn a great pressure is developed in the kernel by the confined oil, which is present in greater quantity, so that the kernel is suddenly exploded and reversed.



THE PASSING OF THE OLD LOG CABIN



## Sunday Reading

### Church Made of Seal Skins

From the loneliest mission station in the world, on an island seven hundred yards broad in the remote Arctic regions north of Labrador, the Rev. E. J. Peck recently reached England after a perilous voyage in a fifty-ton schooner. The missionary's first church at Blacklead Island, Baffin Land, was made of seal skins, but met with an untimely fate, being completely devoured by Eskimo dogs. Nomad Eskimos pay occasional visits, some of them coming all the way from the Bering Sea. In spite of privations, Mr. Peck and his colleague, Mr. Bilby, gave regular teaching to the neighboring Eskimos, and translated the New Testament and Genesis into Baffin Land dialect.

### A Man Who Got Stirred Up

When a lad, our pastor was a learned and most excellent man, an old Yale graduate, and a student of Dr. Emmons; but he was nearsighted, wrote his sermons on small note paper and in fine letters. It was not easy work to listen to him. At that time and in that place there was no love lost between the Congregationalists and Baptists. One Lord's day, in the winter, the Baptists cut the ice and immersed half a dozen converts in a brook near by. That was more than our good minister could stand, and the next Sunday he lightened and thundered without any notes for most an hour on the inconsistencies of the Baptists. It was easy to hear him. When we returned home, mother remarked to father that she wished "Father Davis loved sinners as much as he hated Baptists; that then we should have some preaching." It was a just criticism, and it states the secret of nine tenths of the dull preaching—a lack of passion for souls.—Author Unknown, from Wesleyan Methodist.

### What a Wise Wife Knows

She knows that home is more than half what you make it, and that a builder of a happy home is a success indeed. She knows that it takes two to prolong a family quarrel; one can therefore terminate it. She knows that filling a house with bargains keeps a couple from owning the house in which they place them. She knows that if we thought all we said we'd be wise, but if we said all we thought we'd be foolish. She knows that some people sneer at love in a cottage, but love that could wish to live anywhere else is not love. She knows that proud people seldom have friends. In prosperity they know nobody; in adversity nobody knows them, says "Woman's Life." She knows that to make long-lived friendships one must be slow in making them. She knows that the woman who gains a trifle meanly is meaner than the trifle. She knows that "it is less pain to learn in youth than to be ignorant in old age."

She knows that if she cannot throw brightness over her home it is best not to throw a wet blanket over it. She knows that the wife who thinks she is perfect is generally the most imperfect. The unwise wife may profit by studying what the wise woman knows.—Modern Woman.

### Show Your Colors

Occasions arise when we must show our colors, when we must make plain our allegiance, whatever the cost; occasions in every life which afford no honorable escape through silence or concealment. In moral questions there is no neutral zone; if there were, it would be filled with cowards. There is neither courage nor morality in the man who sits on the fence wanting to see which way a selfish interest would have him go. Nobody respects him, and certainly he cannot respect himself. The person without moral courage is the most pitiable object in all this world.

We are obliged to handle principles of right and wrong every day of our lives, and it makes a vast difference how we do it. To prefer the smooth thing to the right thing has never yet proved to be the safe thing. If a man fears to take the unpopular side when he sees it to be the right side, or fears to do under any circumstances what will bring on him the criticism or disapproval of others, he has reason to believe that his moral nature needs overhauling. . . . You can get along without the praise, or even without the approval, of other people, but you cannot get along without the approval of your own conscience. I would not give a fig for the person who is always taking his color from his surroundings, always deriving his moral judgments, not from his sense of right, but from his idea of what other people will think.—Samuel Valentine Cole in "The Life That Counts."

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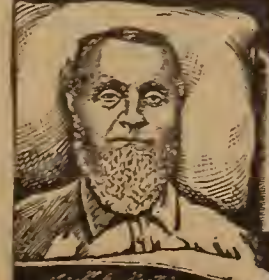
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**How to Dress**

By Grace Margaret Gould

Illustrations by William G. Ames



No. 729—Tucked Chemisette  
Waist

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and one half yards of twenty-two-inch material, or two and five eighths yards of thirty-inch material, with three eighths of a yard of all-over lace, three fourths of a yard of velvet, and three fourths of a yard of edging for jabot.

This waist, has an adjustable U-shaped chemisette made of baby Irish lace. A jabot of soft lace gives a pretty finishing touch to the brown velvet buttoned-over plastron. The waist is tucked to yoke depth back and front, and the full sleeves have the lower portion tucked.



No. 730—Tucked Skirt, Five  
Gores

Pattern cut for 22, 24, 26 and 28 inch waist measures. Quantity of material required for medium size, or 26 inch waist, ten yards of twenty-two-inch material, or nine yards of thirty-inch material, with nine and three fourths yards of insertion, and twenty-eight yards of ribbon velvet for trimming.

Tucks gracefully shape this skirt to the figure over the hips and simulate a deep yoke. The model is cut in five full gores. The trimming consists of insets of lace and bands of narrow ribbon velvet.



No. 734—Pony Jacket

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust measure, four and one fourth yards of twenty-two-inch material, or three and three fourths yards of thirty-inch material, with three fourths of a yard of velvet for trimming.

No. 735—Three-Piece Skirt

Pattern cut for 22, 24, 26 and 28 inch waist measures. Length of skirt, forty-two inches all around. Quantity of material required for medium size, or 26 inch waist, nine yards of twenty-two-inch material, or eight yards of thirty-inch material.

No. 731—Empire Bolero

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and one fourth yards of twenty-two-inch material, or two and one half yards of thirty-inch material, with four and one half yards of insertion for trimming, and two yards of lace for frills.

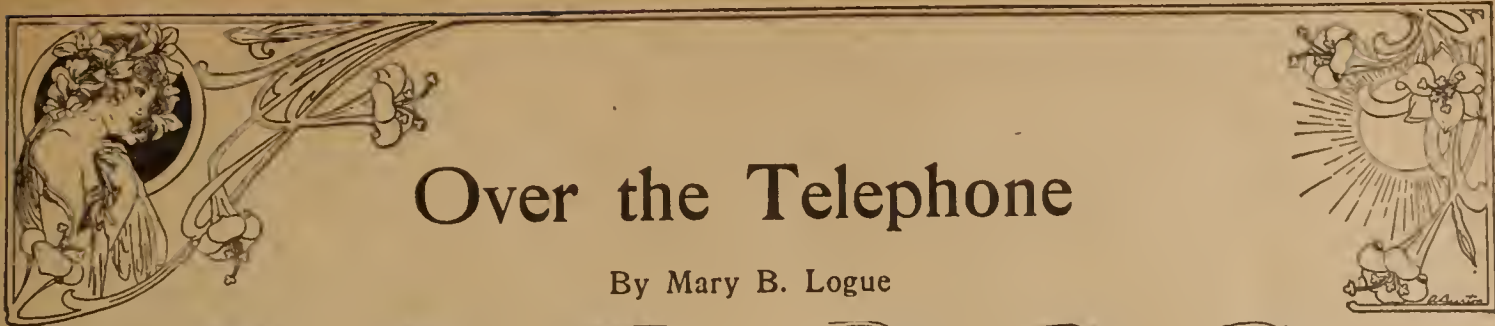
No. 732—Princess Skirt, Nine Gores

Pattern cut for 24, 26, 28 and 30 inch waist measures. Length of skirt from belt to hem in front, forty-two inches. Quantity of material required for medium size, or 26 inch waist, thirteen yards of twenty-two-inch material, or eleven yards of thirty-inch material.

The Princess effect is the height of fashion this spring. This charming walking costume is made with a Princess skirt cut in nine gores and a fetching little Empire bolero. With the skirt is worn a lace waist.

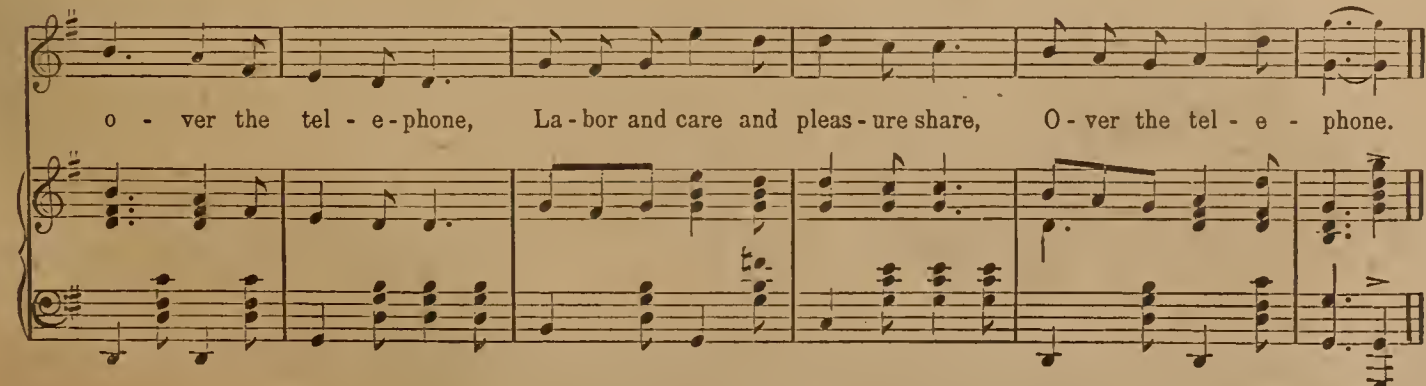
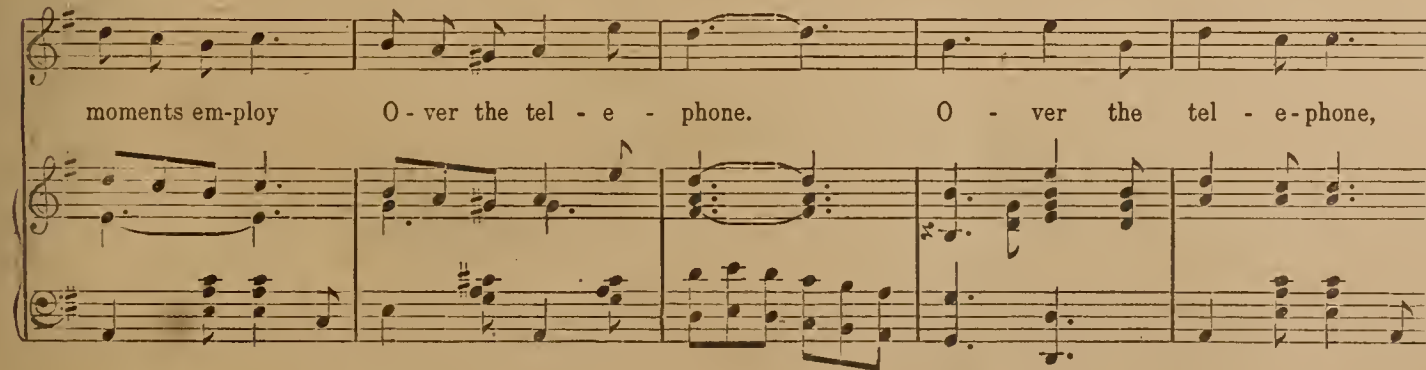
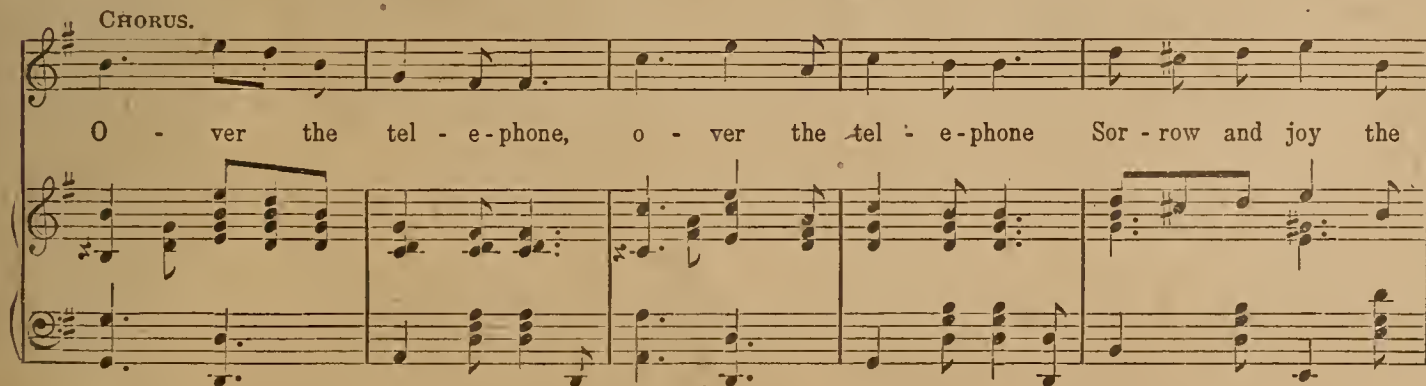
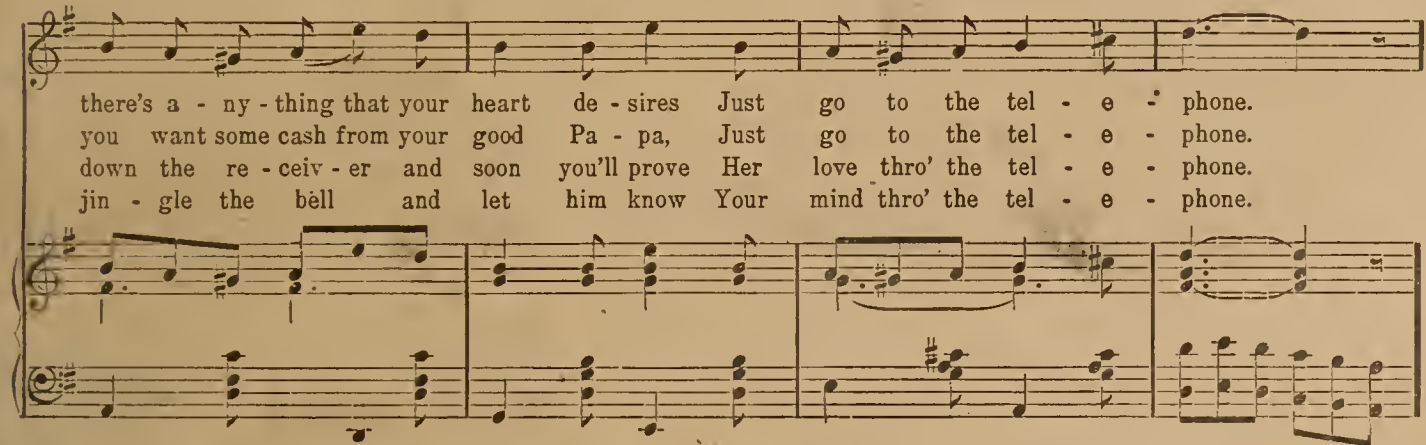
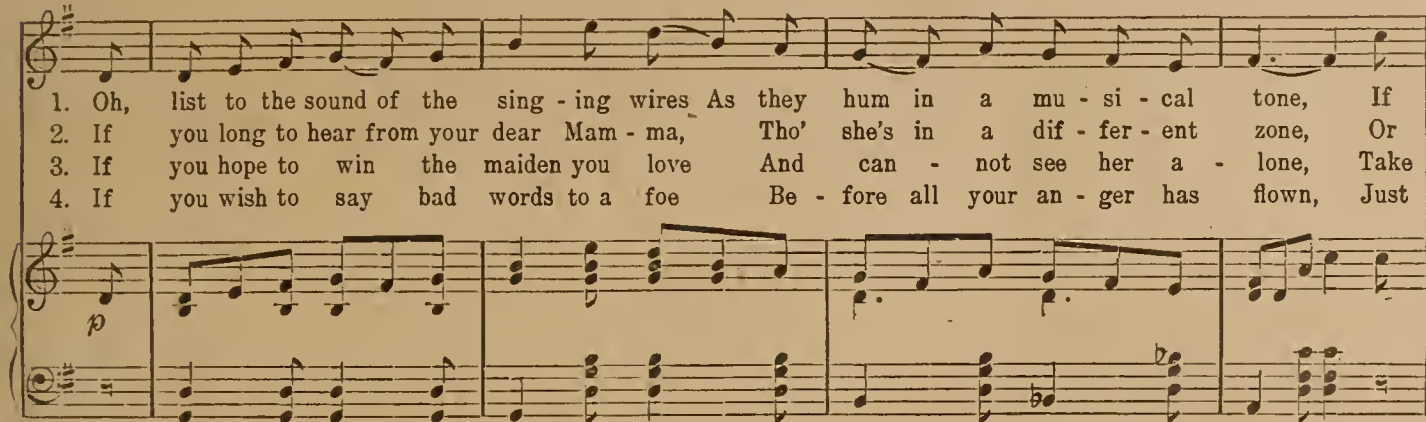
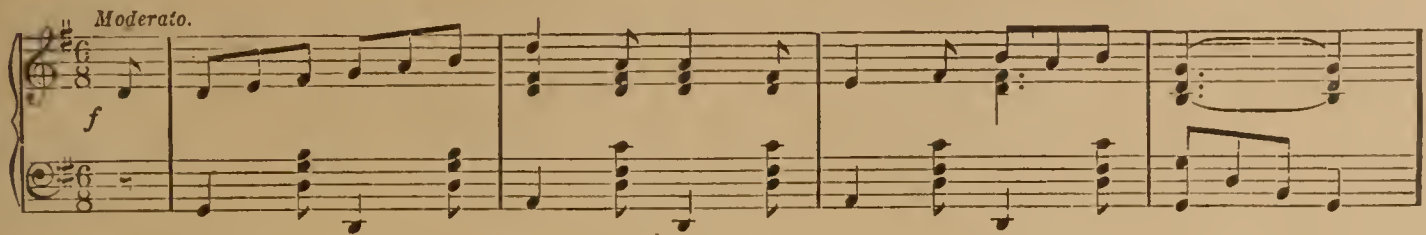
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# Over the Telephone

By Mary B. Logue



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NOTHING in the educational history of our country is more interesting or more creditable than the remarkable progress made in recent years in educating the blind, the deaf and the dumb. It is of interest to know that the first American school for the blind was founded in Boston in the year 1832, and from that beginning grew the great Perkins Institution for the Blind, an illustration of which is given with this article.

Although there was an institution for the blind in Paris as early as the year 1260, its real educational value was slight, and the mere suggestion of teaching the blind to read would have been scoffed at. As for teaching the deaf, dumb and blind to read and write, such a thing would have been hooted at even by men of intelligence a hundred years ago. In some parts of England a deaf, dumb and blind person was classed as an idiot, and no attempt whatever was made to teach one thus afflicted. When Dr. Samuel G. Howe, the world's great benefactor of the blind and dumb, attempted to teach Laura Bridgeman to read and write, and even to become something of a mathematician, it was thought that he was attempting the impossible, but all the world knows how well he succeeded in demonstrating to the world that the deaf, dumb and blind could be taught to read and to write, although it is doubtful if even the enthusiastic Dr. Howe was sanguine enough to think that the dumb could be made to speak as Helen Keller speaks, or that any deaf, dumb and blind person could ever do all this remarkable girl has done.

If you should visit the famous Perkins Institution for the Blind, in South Boston, you would find in the hall some interesting pictures and marble busts of men to whom the blind owe a mighty debt of gratitude. One of these men was Dr. John H. Fisher, a young physician who went from America to Paris to study medicine many years ago. While in Paris the young medical student became greatly interested in the work that was being done for blind children in Paris, and he resolved to make an effort to establish some such educational system for the blind in America when he should return to his native land. When he reached America young Doctor Fisher was able to interest a number of philanthropic and public-spirited men in his plan, and in the year 1830 an organization was formed and incorporated under the name of the "New England Institution for Asylum for the Blind." William H. Prescott, who later became one of America's historians, was one of the founders, and another was Dr. Samuel Gridley Howe, husband of Julia Ward Howe. Doctor Howe entered into the work with all the enthusiasm of his ardent nature. The infant organization began its work in the home of Doctor Howe's father in Boston with three pupils in August of the year 1832, and Dr. Samuel Howe was placed at its head. Mrs. Howe gives in her book of "Reminiscences" this account of Doctor Howe's work: "He founded, built up, and directed the first institution for the blind known in this country. This was a work of great difficulty, and one for which the means at hand appeared utterly inadequate. Beginning with the training of three little blind children in his father's house, he succeeded so well in enlisting the sympathies of the public in behalf of the class which they represented that funds soon flowed in from various sources. The present well-known institution with its flourishing workshop, printing establishment, and other dependencies, stands to attest his work, and the support given to it by the community."

It is of interest to add that the first time the sprightly young Julia Ward ever met the man who was to become her husband was one summer day in 1841, when Miss Ward, the poet Longfellow, Charles Sumner and one or two others went to the asylum for the blind to see Laura Bridgeman, who had by this time become an inmate of the institution, and with whom Doctor Howe was already accomplishing such wonders that the public interest in her was as great as it has been in recent years in the still more remarkable achievements of Helen Keller.

Laura Bridgeman was brought to the institution when she was eight years old, blind, deaf, dumb and with even the sense of smell partly gone. She spent the remainder of her life there, dying in the asylum in the year 1889. She was one of the most successful teachers, and distinguished men and women from all parts of the world visited her when they came to Boston. Charles Dickens visited her, and has given a very interesting account of her in his "American Notes." She was the most famous deaf, dumb and blind person of her day, and Doctor Howe's achievements in educating her were commonly referred to as a "modern miracle."

There is not in all the world a better institution for the education of the blind than that resulting from the efforts of Doctor Fisher and Doctor Howe nearly seventy-five years ago. Many hundreds

## First American School for the Blind

BY MORRIS WADE

of boys and girls have been educated here. Helen Keller was here for a number of years.

Boston now has in addition to its great Perkins Institute one of the finest kindergartens for the blind in the world, and within two or three years a home for blind babies has been established. Indeed, Boston has so many asylums and homes and institutions of every kind for the afflicted, the poor, the suffering, the homeless, the unfortunate, that it is no wonder that Helen Keller has given to it the name of the "City of Kind Hearts."

\*

### Noted Woman Answers Last Call

Few people have lived to see so thorough a revolution in public opinion regarding both themselves and their chosen



SUSAN B. ANTHONY

cause as did the late lamented Susan Brownwell Anthony, whose death came at Rochester, N. Y., on March 13th last.

She was the greatest and most successful advocate of woman's suffrage the world has known, and her death was a signal for universal sorrow.

Sixty years ago, living as she did in the era of persecutions, and ardently espousing as she did all the unpopular causes—the abolition movement, the temperance movement, and, above all, the apparently heaven-and-earth-reversing "woman movement," she was vilified, attacked and ridiculed as the worst and most dangerous female lunatic at large.

Now this "short-haired, red-eyed reformer," as she once was indignantly termed, is honored everywhere by press and public, whether suffragist or non-suffragist; and this woman, who had known the indignity of arrest, has been presented at more than one foreign court as a representative of progressive, high-souled American womanhood.

More than all, Miss Anthony lived to

see her dreams come true. What she wanted and worked for and what has been realized, was the equality of the sexes, the opening of the world's avenues of work to women.

"Susan B., the Persistent She," as her friends lovingly term her, was born at South Adams, Mass., February 15, 1820, of Quaker parentage. She was, therefore, eighty-six years old when death came.

Shocking the orthodox was an inherited tendency with her, for her father, a wealthy mill owner, was "read out of meeting" for allowing the use of one of his rooms for the instruction of a class in dancing.

The father also believed in teaching girls and boys self-reliance, so at twelve the young Susan, who had been educated partially at a Friends' school in Philadelphia, was working in his cotton mill. At fifteen she became a teacher in the public schools of New York state, and thereby hangs the tale of the whole woman's suffrage movement in America.

Very quickly the trim, tall, comely, not in the least defeminized schoolma'am, who has quaintly confessed her fondness for "pretty clothes, particularly bright plaids," recognized the injustice by which she received only eighteen dollars a month for doing the same work for which male teachers received twenty-four to thirty dollars. The result was a dramatic and then unprecedented occurrence at a meeting of the New York Teachers' Association. For hours the men had been discussing the problem why the profession of teaching was not as honored and influential as that of law, medicine and theology. Suddenly a gentle young woman rose and said: "Mr. President!"

The amazed president leaned forward, peering under his spectacles, and said, naively, "What will the lady have?" It did not occur to him that she could wish to speak on the question, but on her signifying that she did and permission being granted, Miss Anthony said:

"I merely wish to suggest a solution to the question you have been discussing. As long as society says that a woman has not brains enough to be a lawyer, a doctor, or a minister, yet may be a teacher, do you not see, gentlemen, that every man of you who enters the profession of teaching puts himself on the level of this degraded class, and tacitly acknowledges that he has no more brains than a woman?"

Amid the silence of the men, Miss Anthony sat down.

The most dramatic event of Miss Anthony's life was her arrest and trial for voting at the presidential election of 1872, at Rochester, N. Y. She was arrested, released on bail, tried and sentenced to pay a fine of one hundred dollars and costs.

"May it please your honor," she said, "I will never pay a penny of this unjust penalty," and she never did.

Though efforts were made to collect it, they all failed.

Miss Anthony, a few days before her death, said to her sister:

"Write to Anna Shaw immediately, and tell her I desire that every cent I have left

when I pass out of this life shall be given to the fund which Miss Thomas and Miss Garrett are raising for the cause. I have given my life and all I am to it, and now want my last act to be to give it all I have to the last cent. Tell Anna Shaw to see that this is done.

In compliance with Miss Anthony's request, Miss Mary Anthony wrote immediately and within an hour after the letter was sent Miss Shaw unexpectedly arrived at Miss Anthony's home.

She urged Miss Shaw and her sister to see that her wish was carried out at once. She had no thought but for her life's work and the workers, declaring that both were now, as ever, dearer to her than her life.

Miss Anthony herself had believed that she would recover. Early in her illness she told her friends that she expected to live to be as old as her father, who was over ninety when he died.

\*

### Dubious Diamonds

It is an established fact among jewelers that some of the well-known stones generally accepted as genuine diamonds are not such, while about others there is a difference of opinion among the experts themselves. "The fact is," said a Philadelphia diamond dealer, "that any transparent stone composed entirely of carbon is, in the eyes of the man of science, a diamond. But for the dealer there are many questions of color and quality, and from his point of view a stone composed of pure carbon might be no nearer what he calls a diamond than a lump of coal which has practically the same composition."

"Many experts refuse, for instance, to put Brazilian stones in the class of true diamonds, though the Braganza, one of the Portuguese crown jewels, is such. That stone weighs 1,680 carats, as I remember the figures, and is as big as a hen's egg. Considered as a genuine diamond, it would be worth over two hundred million dollars perhaps; but the question is not, after all, important, because it is not likely ever to come upon the market. Indeed, there cannot be said to be a market, in the ordinary sense, for such a stone as that and if it was ever offered for sale its price would depend on other things than its computable value. Another dubious diamond is one weighing 367 carats, owned by the Rajah of Mattang, Borneo. Such men as have seen this stone and are willing to pass an opinion are divided on the question. The genesis of the stone is also involved in doubt, which is curious, because practically all the large and well-known stones are of known origin and history."

"After all, this matter of genuineness is within certain limits one of dispute among dealers, and it is not of importance to the general public because it concerns only the very large and famous stones which are not for sale. In the ordinary stones of commerce quality varies greatly, but there is no difference of opinion as to genuineness. It is either a diamond or it is not."

\*

### Saving Himself

Jenks—"Why on earth did you laugh so heartily at that ancient jest of Borem's?"

Wise—"In self-defense."

Jenks—"In self-defense?"

Wise—"Yes; if I hadn't laughed so, he would have repeated the thing, thinking I hadn't seen the point."—Catholic Standard.



PERKINS INSTITUTE—THE FIRST AMERICAN SCHOOL FOR THE BLIND



## Order for Nursery Stock

J. H. L., Michigan, asks: "In September of last year I ordered six dollars' worth of nursery stock, to be delivered this spring, 1906. Afterward my husband, who knew nothing of it, lost his position, one little one died after a month's illness, and I don't see how we are going to pay for the nursery stock. I have written the firm the circumstances, asking them to countermand the order, but as yet have received no reply."

As to whether or not given conditionally, the fact of your misfortune would not rescind the order. You have nothing else to do, except that if the order is filled, to pay for it.

## Defects in Animals Purchased at Public Auction

O. S. P., Iowa, writes: "A. bought a cow at auction sale, gave his note, and started the cow home. After driving her half a mile he detected a lump on her jaw. He then drove her back and demanded his note back. Can a lumpy-jawed animal be sold at auction (according to law) without the seller mentioning the same? Who in the above case would be the loser?"

Unless the owner of the animal expressly warrants it to be sound, or so acts as to commit a fraud in inducing the purchaser to believe that the animal is sound when it in fact is not, a purchaser at a public auction only takes the animal as it is. He buys under the old common-law doctrine of *caveat emptor*, which means let the purchaser beware. It seems to me that the mere fact that the cow had a lump on her jaw would not be sufficient to require the seller to take it back. It was the purchaser's business to examine the animal before he bought it.

## Mortgage Given by a Homesteader Before He Secures a Patent for the Same

T. N., Minnesota, writes: "If a homesteader gives a mortgage on his homestead (and is recorded) before he gets the final receiver's receipt or United States patent, will the mortgage be good when the receiver's receipt or patent is recorded later?"

Yes, I should think the mortgage would be good. The owner at least would be estopped from setting up the pleading that he had no title to the same, as the giving of the mortgage indicated that he claimed to have had a title in the same.

## Inheritance—Husband from Child

D. G. C., Michigan, inquires: "A mother and daughter bought a house and three lots, and got a joint deed. The daughter married and had a child, and died. In two years the child died. Mother always paid taxes. Who inherits the daughter's half of the property?"

When the daughter died, then the child inherited her one half, subject to the father's right to use one third of it during his lifetime. When the child died, the husband or father inherited the child's interest.

## Property Devised—Color of Title

A. B. C., Illinois, asks: "A man leaving a wife and children and also children by a previous marriage, died, leaving a will. His property consisted of farms, of which he left one to each of his children by his first marriage. To his wife he willed the use of one third of the home farm for her lifetime. To his two children by his marriage with that wife he willed the other two thirds of the home farm and also the wife's one third after her death. One of these children died, leaving a will in which he left his share to his mother and her remaining son, after leaving a small sum of money to each of the children of the first marriage. At the death of the widow, can the children by the first marriage come in for any share of her part? Can the children of the first marriage get any share of the part of the deceased child, he at the time of making his will having been of age? What is meant by paying taxes 'under color of title'?"

I do not understand on what theory the querist persists in questioning the inheritance of the property under a will. The statement seems to be very plain. Of course the children of the first wife would have no right to the property of the mother or of that brother or sister as the case might be. By "color of title" is generally meant that a person is in possession of real estate by some evidence of the right thereto, such as a defective deed, and right by inheritance or under a tax claim or title, or something of that kind.

## Surviving Consort's Right to Property

A. R., Kansas, asks: "A man died in Kansas having made no will, and left a wife but no family. What part of the estate goes to the widow?"

The surviving wife would get it all.

## The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

## Renewing of Real Estate Mortgage

W. A. W., inquires: "A. owned six acres of land and borrowed money from B. to build a house. A. and wife gave B. a mortgage deed on house and land for two years. Will B. have to have the mortgage deed renewed before the two years is out?"

Real estate mortgages having been once recorded do not have to be again recorded to keep them alive, even if the debt secured by the mortgage is due. The mortgage will be good until barred by the statute of limitations and that statute varies in different states, being from six to twenty years.

## Use of Mail Boxes

S. M. W. wants to know if one can use his own mail box for notes and packages, with address of receiver on and no postage.

I do not know that a moderate use of the mail boxes for other than mail purposes, such as being a receptacle of messages from one neighbor to another, would in any way make a person owning the same liable under any United States law. If such outside use would seriously interfere with the mail carrier's use of the same, such as making it very likely that he would make mistakes in collecting his mail, etc., then it would be such a misuse that the post office authorities would instruct the letter carrier to notify the patrons of their misuse of the boxes, and if they continue in a misuse of the same the mail might be stopped.

## Husband or Wife Signing Will of the Other

E. M. wants to know: "If a woman makes a will for property that was willed to her by her parents, does her husband have to sign it, and does a wife have to sign a will if the husband makes a will to property that they have worked for?"

I know of no law anywhere that either requires or authorizes a husband or wife to sign a will of the other. Wills are usually not made that way. To constitute a person's will it is supposed to be his own will. Of course, a person making a will cannot deprive the husband or wife from whatever right he or she may have in the property of the other.

## Lawful Fence

H. E. S. writes: "We have a stump fence between our land and the adjoining neighbor, but he says that it is not a lawful fence. How many barbed wires does it take to make a lawful fence, and how far apart should the posts be? We bought some land eighteen years ago, and there are twenty acres floated with water by a sawmill dam. Our paper don't claim for any floatage. Can we stop him from floating that tract of land?"

I am not advised as to the statutes in your state as to what will constitute a lawful wire fence. I doubt whether the statutes provide how many wires it shall have, or how far apart the posts should be. The thing usually required is that it should be fenced sufficient to turn ordinary stock. If you want to stop that man from floating your land with water, you had better do it pretty soon, or the statute of limitations will give him a right to the same. The fact is, I fear, he already has such right. Better consult a local attorney at once.

## Rights of Wife Living in Foreign Country

G. X., Washington, writes: "A married Englishman comes to America alone, acquires property and becomes a citizen. Can the wife remaining in England claim any part of the estate? Can he legally sell without her signature?"

A man cannot get rid of the marital rights of a wife by leaving her in a foreign country, so long as they are legally married and the marriage relation has not been dissolved by death or decree of court. The wife is entitled to her rights, and the husband cannot sell his real estate free from her dower or other statutory rights therein, unless she agrees thereto.

## Sending of Money to Foreign Treasurer for Taxes

J. K., Illinois, writes: "I live in Illinois. I own land in Greeley County, Kansas. I have been sending the taxes to the county treasurer. This year I sent the taxes November 23d, by post office order, to the county treasurer, and can't get any answer from him, or get the tax receipt. I have

written to him twice. The postmaster has written to the postmaster in Tribune, and he says it hasn't been presented for payment yet. There is a penalty of five per cent added since December 20th. Will I have to send more money? Can he leave the money lie in the post office and advertise the land for sale in July and sell it?"

The only thing that I know for you to do is to write to some one at the place where the taxes are to be paid, and have him see the county treasurer, and ask him whether or not he has received such order, and what should be done about paying the taxes. It is barely possible that he never got the order, as it has not been presented. It is not the duty of the treasurer to run after the people to collect the tax money. It is their duty to take it to his office. The only thing for you to do is to see whether or not he got the money. If he did get it, you are not liable for any penalties, that is, you might make the treasurer pay the penalty, but that might not prevent a sale of the property for taxes.

## Occupation of Land Necessary to Homestead Claim

E. C. A., Kansas, asks: "Mr. A. has filed a homestead claim in Oklahoma, and by the homestead law can obtain title at the end of one year's residence. If the wife of Mr. A. refuses to reside on claim the full time required, can Mr. A. hold the claim?"

This is a case where A. will not be justified in allowing his wife to control his actions. The fact will be, whether or not A. has given a required residence. If not, no matter by whose fault, then his right will fail. If A. lives on the claim alone, that will be sufficient, as the husband's residence is presumed to be the residence of the wife.

## Interest in Property in Mutual Organization

A. W. T., Illinois, writes: "We have a band here of fifteen men, who have all worked together and bought instruments and uniforms. Each man has an equal interest in all of the band property. If a man quits the band and keeps the instrument and uniform that he has in his possession, can any one man or number of the men that are left compel him to give them up?"

In such an organization each party would no doubt be entitled to an equal share in all the property belonging to the organization, and I doubt very seriously if anyone could prevent a withdrawing member from retaining his share of the organization, at least if the same did not exceed the value of his proportionate share of the entire assets of the association. The courts might not allow him to keep the same if the organization would agree to pay him the reasonable value of his interest therein, but certainly the individual member, if he withdraws, has a right in some way to his share of the assets of the organization.

## Right of Widow to Sell Her Property

S. M. W., Oklahoma, writes: "A widow sold her lifetime right to her property in Millwood, Ohio, thirty-four years ago. Nine years later she died. Can her grandchildren get a share, and can they collect rent for the twenty-five years others have used the property?"

I do not understand on what theory the inquirer proceeds to establish any ground upon which the grandchildren could claim any part of the property. If the widow sold her property, that was her privilege. Why would not the person who bought the same have a right to use it?

## Rights of Owners to Private Lake, etc.

A. S. writes: "A, B, C. and D. own a lake in Pennsylvania of about fifty acres, without inlet or outlet, each portion covered by deed. Can any one of the four cut ice, fish, row or cross the others' waters without his permission? Can other people? Can a man write his own will? Is a will valid without witnesses? Must a will be probated? Can an executor's wife be a witness? Can a minor be a witness?"

The ownership in waters of private lakes is the same as the ownership of the land generally. In fact, it is merely considered as land covered by water, and therefore the owner of the land has full right to the use and control of the water resting upon his land, no one has a right to fish there, or cut ice, row, or anything of that kind upon his water without his

permission. Yes, a man can write his own will, if he knows how. No, it is not valid without witnesses. Yes, a will must be probated to be valid. It is done after the death of the person making the same. Yes, an executor's wife can be a witness if she was not otherwise interested. Yes, a minor, if of sufficient age to understand the nature of his act, is competent to be a witness.

## Inheritance

E. P. M., Oklahoma, wants to know, if a husband die and leaves no children, can the wife assume control of the whole estate? Can the wife will it to whom she sees fit? What is the law in Ohio?

While the above query is dated Oklahoma, yet I presume the answer desired is according to the law of Ohio. In Ohio, when there are no children all the personal property goes to the wife absolutely, and also all real estate that was purchased by the husband. In the real estate inherited by the husband, she has a life estate only.

## Cancellation of Mortgage

S., Oregon, writes: "A. bought a farm of B., giving two notes in part payment, secured by mortgage on the place, balance cash. B. sold the mortgage, merely indorsing the notes to C. and D., partners, both unmarried. D. died. C. married and afterward died. His widow remarried. She held the mortgage, and final payment on the mortgage was made to her. She released the mortgage on records, signing her present name, *nee* C. Does the fact that the records do not show that B. has received satisfaction for the mortgage still give him a lien on the place? If so, what course should be pursued? Is mortgage properly released?"

No, the mortgage is not properly canceled, that is, the records do not show all the facts that are necessary to make a proper cancellation. C. may have had a perfect right to cancel the mortgage, but there is nothing to show that she had such right. There might possibly have been some cancellation made that would show that C. was the owner of the notes, and that the notes had been paid. The better way now would be, if possible, to have B. enter a cancellation of the record.

## Gift of Property

S. K. R., Illinois, writes: "Four years ago A. gave to his brother a colt, under certain conditions, which were fulfilled by B. But since the colt has grown up to a valuable horse, A. refuses to let B. have it. B. has taken care of the colt most of the time, till old enough to work. Since then A. has worked him most of the time. Can B. compel A. to give him the colt?"

A gift of property, if possession is not made, cannot be enforced. Neither can it be enforced if it does not rest upon a consideration, and then it would be more in the nature of a sale than a gift. If the conditions which were to be fulfilled by B. could be counted a good consideration for the colt, then no doubt the gift could be enforced; otherwise not.

## Right to Remove Timber from Land Purchased from Another

W. M., Oklahoma, asks: "A. having bought one hundred and sixty acres of land of B., B. sold two small tracts of timber to C. and D., with the understanding that they were to have all down wood and all large enough for posts, and have their own time to get said timber out. That was three years ago. When A. bought it he told C. and D. they could have eighteen months to move said timber. That was two years ago, and all of said timber has not been moved yet. When can I come into full possession of said property?"

A. having knowledge when he bought the land of the timber being sold, he would be bound to give the purchasers of the same a reasonable length of time to remove the same. He would not be bound to give them an indefinite length of time. I should think that the proper thing to do would be to notify them to remove whatever timber they have, say within six months, and if they did not do it, to take possession of the land and forbid them entering thereon thereafter.

## Fortune in a Foreign Country

A. L., Indiana, asks: "I would like to know who the proper heirs are to a fortune that is to be settled in the old country."

Most fortunes in foreign countries exist only in the minds of interested speculators, who like to dupe a lot of people in the fond belief that they are entitled to some great fortune. These speculators intend and usually do reap some benefit from the persons who have these great fortunes in expectancy. You had better address a letter to the American consul of the largest city near which the supposed estate is located.



## Eb and Flo

Flo was fond of Ebenezer—  
Eb, for short, she called her beau.  
Talk of "tide of love"—great Caesar!  
You should see 'em, Eb and Flo.  
—Cornell Widow.

Eb and Flo they stood as sponsors  
When Flo's sister was a bride,  
And when bride and groom receded  
They, too, went out with the tied.  
—Yonkers Statesman.

When their first child came—a daughter—  
The nurse, for a larger fee,  
Went to some one else who sought her,  
Leaving Eb and Flo at sea.  
—Chicago Record-Herald.

Daughter's given name was Cooper—  
"Coo" for short; and when she grew  
Her beau's name was William Hooper.  
You should see 'em, Bill and Coo.  
—Cleveland Leader.

They were married—had a daughter—  
Name: Hemina—and she saw  
And wed a man whose name was Hawley.  
You should see 'em, Hem and Haw.  
—Milwaukee Sentinel.

## Cap'n Bill's Explanation

After the visitors to the island of Nantucket had covered the course over which sightseers are always conducted, says a writer in the Boston "Herald," one of the ladies of the party requested that the drive be continued to "Sheep Pond."

"The place where the natives used to wash the wool on their sheep in the old days," she supplemented. "Everybody goes to see it."

The driver and guide, "Cap'n Bill," looked perplexed; he was evidently puzzled as to the location of this interesting sheet of water. But an old sailor and town character is rarely nonplused, and presently Cap'n Bill snapped his whip, determination in his eye. He drove to a neighboring hill and stopped his horses.

"Here 'tis," he said, with a sweep of his hand.

"I don't see any water!" was the general exclamation.

"Not now," Cap'n Bill gravely admitted.

"You see, the sheep was so dirty that the bloomin' pond got filled up."

## Well Spread

Mike was employed in the powder works. One day, through some carelessness, an explosion occurred, and poor Mike was blown to pieces, his remains being scattered far and near.

When the sad news had been broken to his wife, she said pathetically, between her sobs,

"That's Mike all over!"—Lippincott's.

## By Special Favor

He was a young and smart-looking Scots clergyman, and was to preach a "trial" sermon in a strange church. Fearing that his hair might be disarranged, or that he might have a smudge on his face, he quietly and significantly said to the beadle, there being no mirror in the vestry, "John, could you get me a glass?" John disappeared, and after a few minutes, returned with something under his coat which, to the astonishment of the divine, he produced in the form of a bottle with a gill of whisky in it, saying, "Ye mauna let on about it, meenister, for I got it as a special favor; and I wadna hae got it ava if I hadna told them it was for you."—Tatler.

## His Limits

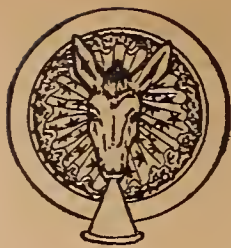
A minister tells this story: "I once had in my Sunday school an urchin from a poor neighborhood. He brought in two or three recruits, and one afternoon I said to him, 'Billy, don't you think you could induce one or two other boys to come to Sunday school?' Billy answered, 'Well, sir, I could bring one, but all the other fellers in our alley can lick me.'"

## Different

"Pop!"  
"Yes, my son."  
"Does the minister approve of everything that goes on in church?"  
"Why, certainly, my boy."  
"Does he approve of mamma's hat, pop?"  
"Oh, well, that goes on before we go to church."—Yonkers Statesman.

## Dancing Measured in Miles

A young man fond of dancing recently took a pedometer with him to a ball and found that in the course of the evening he had covered thirteen and one half miles. The average length of a waltz was half a mile, of a polka three fourths of a mile, of a galop or schottische a mile, and of lancers a quarter of a mile. A girl usually dances more than a man, and is calculated to cover more than sixteen miles in a single evening.—Chicago Journal.



## Wit and Humor



## When Datto Bill Comes Home

[William J. Bryan has been created a "Datto" by the Moros at Duluan, Mindanao.]  
We are rushin' things in Lincoln, with no time for pork and beans,  
Since we heard the glad announcement from the far-off Philippines;  
We are thatchin' all the houses, till the straw roofs are a sight,  
Fer Bill's been made a Datto, and he's got to have things right.

We have set the windmills runnin', and we're goin' to have a lake,  
And we'll build some royal vintas, like the dusky Moros make;  
And our chief kin go a-sailin', fanned by prairie breezes light—  
Fer Bill's been made a Datto, and he's got to have things right.



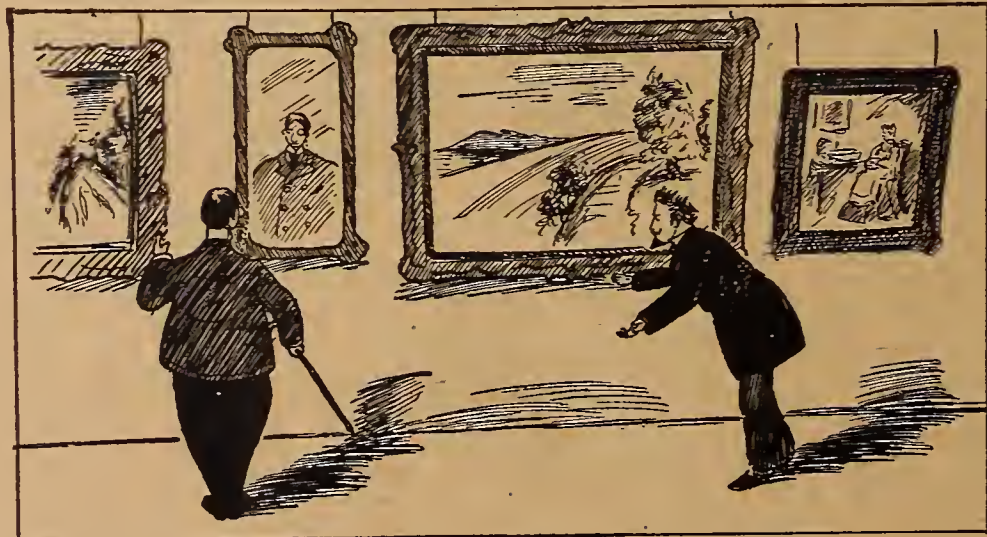
MR. BRYAN BECOMES A "DATTO"  
"At last I have been elected to something"

We have chased the Bryan horses to their pastures down below,  
And we'll hitch his royal carriage to an island buffalo;  
And we're puttin' on the burnt cork, till we're all as black as night—  
Fer Bill's been made a Datto, and he's got to have things right.

We wear bolos in our trousers, where our whisky used to be,  
And we're practicin' a war cry that will bring our chieftain glee;  
And we've schemed an insurrection that will give his heart delight—  
Fer Bill's been made a Datto, and he's got to have things right.  
—Denver Republican.

## Lost Opportunity

I want to tell you one more story, the story of the lost opportunity. Young people don't realize the full sadness of it, but who of us older people doesn't know the



Artist—"These are my own paintings, Professor. What do you think of them?"  
Prof. Nearsight—"Well, really, they show remarkable talent—that is, most of them do. But, for instance, the one here—er—to be candid, sir—I think it very bad taste to have it hung in so conspicuous a place. It is too simple and—"

Artist—"Pardon me, Professor. That is not a painting. That is the mirror."  
—W. K.

pathos of the lost opportunity? In the village which is a suburb of New Bedford a friend of mine took me to the dedication of a town hall and pointed out to me a bronzed, weather-beaten old man over ninety years old.

"Do you see any passion in that old man?" said he to me.

"You don't; well, I can make him a perfect volcano to you. I'll just mention to him something very casually."—And he did.

Well, that old man suddenly gave vent to an outburst of profanity such as I had never heard in my life before. I listened

to him with delight with which one listens to an artist. The cause of it was this. When that old man was a young sailor he came back from a three-year cruise and found the whole town had taken the pledge. He hadn't; so he was ostracized. Finally he made up his mind he couldn't stand ostracism any longer, and he went to the secretary and said: "Put my name down for that temperance society of yours." Next day he left on another three-year cruise. It was torture to him to watch his men drinking and he pledged not to. Finally he got home.

He got a jug of good stuff, ran to the society, and said, "Take my name right off."  
"It isn't necessary," said the secretary, "you were blackballed."—From Speech by Mark Twain.

## Unmistakable Proof

The estate owned by the late Colonel Crowninshield in a New England seaport town adjoins the pasture of sturdy farmer. A valuable dog owned by the colonel used to get into the pasture and chase and worry the farmer's cows. Finally, he went to Colonel Crowninshield and requested that the annoyance be stopped.

"How do you know it is my dog?" asked Colonel Crowninshield, rather unsatisfactorily.

"How do I know?" exclaimed the farmer, with rising indignation. "Why, I've seen him time and again!"

"You must bring me better proof," replied the colonel, coldly.

"All right, sir," said the farmer, in no uncertain tone. "The next time the dog bothers my cows I'll bring you all the proof you want—in a wheelbarrow."—Boston Herald.

## John's Dividend

Mr. Black, an eminent and wealthy coal dealer, called one of his oldest drivers into the office the other morning, and tendered him quite a large sum of money.

"What is this for?" asked the astonished driver.

"Merely a token of appreciation for services rendered," replied Mr. Black, kindly.

"But, sir, you've always paid me enough."

"There is more than that in it, John," continued the dealer. "I really owe you the money."

"I don't understand."

"Let me tell you," said Mr. Black—and he dropped his voice to a whisper. "You have been with me for twenty years, working three hundred days every year and averaging three loads a day; that makes eighteen thousand loads. You weigh about one hundred and fifty pounds, John,

## Hopeless Case

Bill Jones, he's a reg'lar freak;  
Clean through the country you might seek  
And never find in all your days  
A fellow with such curious ways.  
You tell him how this country's bound  
For ruin, 'cause finance ain't sound,  
Likewise deficient is the law;  
Bill simply laughs an' says, "Oh, pshaw!"

He ain't afeard o' germs an' things;  
He says the daily sunshine brings  
Its remedy for every woe  
Until it comes your time to go.  
I ain't like that, my stars I thank!  
How ken you argue with a crank  
That lets you stan' aroun' an' jaw,  
An' simply laughs an' says, "Oh, pshaw!"  
—Washington Star.

## Sure He Saw the Whole Fight

A man visited the scene of the battle of Antietam, and there met an old colored man who took pleasure in explaining all "facts" about the engagement.

The negro was asked if he was present when the fight took place, and his answer was, "Sartainly, sah; sure, I wuz right heah."

"Then you must have seen the whole thing."

"Deed I did, sah; an' it was right bilious times, sah."

"What position did you occupy?"

"I wuz down in de cellar, sah. I got down dar to keep out de way of de Yankees, 'case I knowed dat I would be 'bleeged ter whoop for dem, an' I knowed dat Marse Bob Lee didn't 'spec' dat of me, so I just got down in de cellar, an' let 'em fit it out."—Washington Star.

## Recipe for a Happy Life

The Boston "Budget Beacon" gives the following "Recipe for a Happy Life," as the composition of Margaret of Navarre in 1500:

Three ounces are necessary first of patience.

Then of repose, and peace of conscience a pound is needful.

Of pastimes of all sorts, too, should be gathered as much as the hand can hold.

Of pleasant memory, and of hope, three good drachms

There must be at least; but they should moistened be

With a liquor made from true pleasures which rejoice the heart.

Then of love's magic drops a few—  
But use them sparingly, for they may bring a flame

Which naught but tears can drown.  
Grind the whole and mix therewith of merriment an ounce

To liven; yet all this may not bring happiness,  
Except in your orisons you lift your voice

To Him who holds the gift of health.

## A Drummer Among Legislators

A drummer by the name of John Dutton, who was stopping at a hotel in Montpelier, Vermont, when the legislature was in session, found his hotel, the Pavilion, was the headquarters of most of the representatives.

When supper was announced the legislators rushed in and took their places, and began to call upon each other to pass the food, saying, "Will the man from Bradford please pass the rolls?" or, "Will the gentleman from Essex pass the pie?" or "Would the man from Portland please pass the butter?"

This did not suit the drummer, who had been unable to get anything, and during a brief interval of quiet he turned to the colored waiter and remarked, "Will the gentleman from Ethiopia please pass the bread?"—Boston Herald.

## Indian Territory Humor

A good story is told on John R. Thomas, of Muskogee, a well-known lawyer of that city, who was formerly judge of the western district. One night Thomas found himself in a shabby little town which had no hotel. Desiring to stay all night, he asked a lounge in front of a grocery store where he might find accommodation. The lounge went inside of the store, which was run by an Indian. When informed that there was a man outside who wanted a place to spend the night, the Indian asked,

"Who is the fellow?"

"Judge Thomas," was the reply.

"Well, if that's the fellow, he had better pay me what he owes me before asking me for any favors."

"How is that?" queried the lounge. "Is he in debt to you?"

"Yes," replied the Indian. "When he was judge at Muskogee I was brought before him for selling liquor. I was convicted and in sentencing me he said, 'I will give you sixty days in jail and one hundred dollars.' I got the sixty days all right, but he never came across with the hundred dollars."—Kansas City Journal.



## Wit and Humor

### The Location of the Bullet

"When I was a little more inexperienced than I am now," said an army surgeon, "I had a very embarrassing time performing an operation on an officer who had been shot in the abdomen. It was in the Cuban campaign, and after an engagement this man came in suffering terribly from a flesh wound below the ribs.

"I have hardly ever seen such calm endurance of such agony." He positively refused to take anything to put him out of consciousness. 'Blaze away!' said he. So another assistant and I went to work on him. After we had pattered around for five minutes with probes and scalpels, and



Mr. Bug—"Here comes one of those blamed automobiles"

when our patient must have been wearied with pain and loss of blood, he raised his head enough to look at us.

"What in thunder are you fellows doing?" said he. "Why don't you get busy and sew up that wound?"

"We are probing for the bullet," said I.

"Probing for the bullet!" he exclaimed. "Why, you idiots, I've got the bullet here in my pocket!"—Harper's Weekly.

### None to Take His Place

A traveler was once passing on horseback through a backwoods region where the inhabitants were notoriously shiftless. Arriving at a dilapidated shanty at the noon hour, he inquired what were the prospects for getting dinner.

The head of the family, who had been absorbed in "resting" on a log in front of his dwelling, replied that he "guessed ma'd hev suthin' onto the table putty soon."

Thus encouraged, the traveler dismounted. But, to his chagrin, he found the



Teacher—"Why do you persist in laughing?"  
Pupil—"Cause you are licking the wrong fellow"

food to be such that he could not force himself to partake of it. Making such excuses as he could for lack of appetite, he happily bethought himself of a kind of nourishment that he might venture to take there, and one sure to be found on a farm. He asked for some milk.

"We don't hev milk any more," drawled the head of the house. "The dog's dead—died week afore last."

"The dog!" cried the traveler. "But what has that got to do with it?"

"Well," explained the host, meditatively, "the critters don't seem ter know 'nough ter c'm up ter be milked theirselves. The dog, he used ter go 'n' fetch 'em up."—Youth's Companion.

### Rats

The disgust of a layman with legal phraseology was shown in the will of Elphonzo Youngs, filed a few days ago. Mr. Youngs was a dignified, well-to-do gentle-



Tramp (who has overlooked the dog)—"Just to think—two whole pies and not a soul around"

man, best known for thirty years as a deacon in one of the largest Congregational churches in Washington. He wrote his will himself, evidently starting out to copy from some book form, which set the example in this wise:

"Being by the Grace of God in sound mind and body, and mindful of the uncertainty of human life," etc.

Then suddenly on the written page there appears a dash of ink and the following: "Rats! This is too formal. All there is about it is this—at my death, I want my ever faithful and devoted wife, Amelia Loretta L. Youngs, to have and control everything I possess."—New York Times.

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We will send the above collection of six FINE ROSES, together with the HEARTHSTONE for three months, for only Twenty-five Cents. The HEARTHSTONE is the best household publication for the price in the country. It prints the best stories that money will buy, and its departments, The Home Nook, The Social Circle, The Made, and all who desire to secure a grand publication full of the best reading matter, and wish to adorn their gardens and homes with beautiful ROSES should accept it at once. Satisfaction guaranteed or money refunded. Remit by money order, or in silver if sent in a strong envelope. Postage stamps taken. Address plainly THE HEARTHSTONE PUB. CO., 52 Duane Street, New York.

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## HOW TO BECOME A CONTESTANT

In order to keep out lazy people and the curious ones, every person who desires to contest for the pony must send a club of ten subscriptions to Farm and Fireside before April 15th, then they will be registered as a regular contestant, and full and complete particulars will be sent by return mail. Every person who sends ten subscriptions will receive a prize. Take all yearly subscriptions to Farm and Fireside at 25 cents each; keep 5 cents as your pay, and send to Farm and Fireside at the rate of 20 cents for each subscription, or \$2.00 for a club of ten. NOW is the time, don't delay. Start at once.



This is "Teddy" and the complete outfit we are going to give away. He is from the Geo. Arnett Pony Farm, Springfield, Ohio, and is guaranteed sound and gentle. (No, the little lady is not included in the outfit.)

The entire outfit, "Teddy" (that's his name), his harness and the wagon is valued at over three hundred dollars (\$300). He is one of the finest specimens of the Shetland pony to be found anywhere in the country. We hunted for months to find just the kind of a pony we wanted to give away, and at last we found him, and he is a gem. As pretty as a picture, as gentle as a kitten and as sound as a dollar, and can do circus tricks, too.

### You Should Not Delay a Minute

This is going to be the most popular contest we ever conducted. Every person who takes part is going to get paid for every subscription sent in by him, that is, he will be paid cash, and in addition to the cash every person taking part will receive at the end of the contest A HANDSOME PRESENT. This present will be in addition to the cash paid and will be ABSOLUTELY FREE.

Remember Every Person who enters this Contest will receive a Prize in addition to cash pay for the little work necessary.

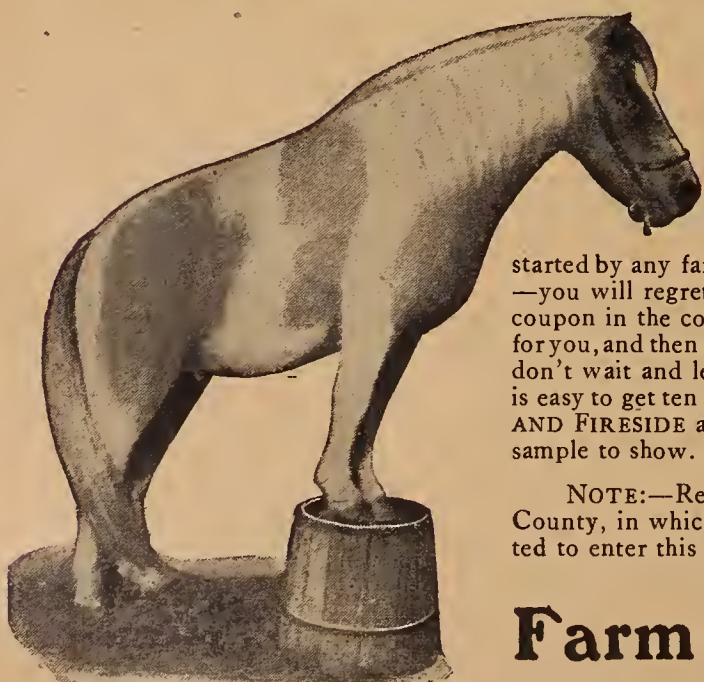
No one will be considered a contestant until he has secured ten yearly subscriptions to FARM AND FIRESIDE at the regular price, 25 cents each—\$2.50 in all—of which he may retain 50 cents; and has sent the balance, \$2.00, together with the ten names to FARM AND FIRESIDE. Then he will receive by return mail full particulars concerning this great contest, and will also be registered

as a regular contestant for the pony, cart and harness, and the other big prizes also.

There is a lot yet to find out about this "Pony Prize Contest" so you should not delay a minute, but send at once for full particulars, and find out all about it before some one else gets ahead of you. It will pay you, it is the greatest contest ever

started by any farm paper. Don't wait but begin at once—you will regret it if you delay. Cut out and send the coupon in the corner at once, and we will keep a place for you, and then hurry with your ten subscriptions. Now don't wait and let some one else get ahead of you. It is easy to get ten subscriptions to a big paper like FARM AND FIRESIDE at only 25 cents each. Always have a sample to show. Now be quick. Don't wait.

NOTE:—Residents of Springfield, Ohio, and Clark County, in which Springfield is situated, are not permitted to enter this contest.



"Teddy" Doing a Circus Trick

### A Description of the Pony

"Teddy" is a beautiful bay and white spotted pony, as shown in the illustrations. He is six years old, stands 38 inches high, and has a long flowing white mane and tail. He is without doubt one of the most beautiful ponies that we have ever seen. Since his picture has been in the papers, showmen and others all over the country have wanted him, but as we said before "Teddy" is not for sale, he is to be given to some boy or girl absolutely free as a present from FARM AND FIRESIDE. Anyone can drive or ride him, because he is as gentle as a kitten, and his intelligence is wonderful. He is so kind and quiet that no one, not even the baby, need fear him. He will be a fine pony for twenty years to come, as he is quite young—only 6 years old. He is valued at Two Hundred Dollars (\$200) on account of his beauty and the tricks he is able to perform, and also because he is so trusty and gentle. He is a prize surely, for some boy or girl. This is a chance of a lifetime for some boy or girl.



Any Child Can Ride "Teddy"

CUT THIS COUPON OUT AND MAIL TO-DAY—DON'T WAIT

FARM AND FIRESIDE,  
Springfield, Ohio

Date.....1906

Dears Sirs:—

I am going to try and secure the pony, wagon and harness which will be given away. I will send my ten subscriptions just as soon as possible. Please keep a place for me among the contestants.

Name.....

Address.....

4-1

## Farm and Fireside

Springfield, Ohio



# EASTER FASHIONS

New Spring Catalogue for Home Sewing Sent Free upon Request.

## Only 10 Cents Each

Garments to be cut and made at home SEND FOR OUR PATTERN CATALOG  
We design and cut our own patterns.

**S**IMILAR PATTERNS retail in fashion bazaars and stores at 20 cents each, but in order to introduce FARM AND FIRESIDE into thousands of new homes, and to make it more valuable than ever to our regular patrons, we offer our line of stylish patterns to the lady readers of our paper for the low price of only 10 Cents Each. Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, with a picture of the garment to go by. These patterns are complete in every particular, there being a separate pattern for every single piece of the dress. All orders filled promptly. For ladies' waists, give BUST measure in inches. For skirt patterns, give WAIST measure in inches. For misses, boys, girls or children, give both BREAST measure in inches and age in years. Order patterns by their numbers. Satisfaction guaranteed or money refunded. To get BUST and BREAST measure, put the tape measure ALL of the way around the body, over the dress, close under the arms.

Patterns 10 cents each, or three for 25 cents

Postage one cent EXTRA on skirt, tea gown and other heavy patterns.

**FREE** We will give any THREE of these patterns for sending TWO yearly subscriptions to Farm and Fireside at the regular price of 25 cents each.

We will send Farm and Fireside One Year, new or renewal, and any ONE pattern for

**Only 30 Cents**

Address FARM AND FIRESIDE, Springfield, Ohio



No. 715—Tucked Blouse

Sizes 34, 36 and 38 inches bust. 10 cents



No. 717—Waist with Square Yoke

Sizes 34, 36 and 38 inches bust. 10 cents.



No. 708—Bolero with Elbow Sleeves

Sizes 32, 34 and 36 inches bust. 10c



No. 711—Eton with Vest

Sizes 34, 36 and 38 inches bust 10 cents.



No. 713—Fancy Eton

Sizes 36, 38 and 40 inches bust. 10c.



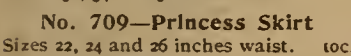
No. 710—Empire Coat

Sizes 32, 34 and 36 inches bust 10 cents.



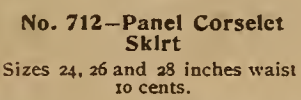
No. 665—Double-Breasted Eton

Sizes 34, 36, 38 and 40 inches bust. 10 cents.



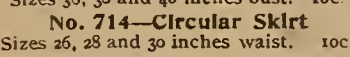
No. 709—Princess Skirt

Sizes 22, 24 and 26 inches waist. 10c.



No. 712—Panel Corselet Skirt

Sizes 24, 26 and 28 inches waist 10 cents.



No. 714—Circular Skirt

Sizes 26, 28 and 30 inches waist. 10c



No. 718—Bolero Waist

Sizes 34, 36 and 38 inches bust. 10 cents



No. 475—Bag Nightgown

Cut for baby's size only. 10c.



No. 720—Boy's Sailor Suit

Sizes 6, 8 and 10 years 10 cents



No. 702—Shirt Waist with Box-Plait Front

Sizes 32, 34, 36 and 38 inches bust. 10 cents.



No. 574—Princess Apron

Medium size, or 36 inch bust. 10c



No. 719—Waist with Chemisette

Sizes 34, 36, 38 and 40 inches bust. 10 cents



No. 716—Draped Waist

Sizes 32, 34 and 36 inches bust. 10 cents

## Spring Catalog Free

NOW READY. WRITE TO-DAY.

All the 1906 Spring Models sanctioned by New York's recognized fashion leaders fully described and illustrated from life. Best Fashion book published. Mail charges prepaid everywhere.



No. 558—Fancy Sailor Blouse

Sizes 8, 10, 12 and 14 years. 10 cents.

No. 559—Gathered Skirt

Sizes 8, 10, 12 and 14 years 10 cents.



## Farm Selections

### Barnyard Manure

It is almost impossible to handle farm manure without a little loss, but we want the most practical way for the average farmer. If we throw out the manure and let it lie in a pile under the eaves of the barn, we can readily see that a loss will take place, for the rains will wash a part of it out where it is not needed. The same will be the effect if piled out in the open pile. If hauled directly to the field and put in a pile, as was the older custom, the portion of ground where the pile is will get more than its share. The best and easiest way for the farmer is to haul out the manure as fast as made in a practical way and scatter at once, and do this hauling on land which is to be plowed in the spring.

This does not mean for the farmer to haul out the manure every day, but this would be all right. I use plenty of bedding in the cattle sheds and haul out when it comes a good time. If you use plenty of bedding, the tramping of the stock will keep the manure from being exposed to the air, and the bedding will be mixed with the manure and all the liquid part absorbed and saved. In this way we can haul it out any day when conditions permit.

A German proverb says, "The manure pile is the farmer's bank, and we should try to have a good deposit there." The opinion was that manure had to be put in piles and composted first. It may be that this was better for some crops; but the practice is going out of date, and the object now is to get the manure into the soil as soon as possible, and let it compost there where little or none will be lost.

Probably some of the readers have heard the story of the successful old farmer who would never tell when asked the secret of his success, but said it would be written and put in an envelope and sold after his death. After his death the sealed envelope was sold at auction for a good price. These were the words, "Manure, Manure; nothing but manure." Let every farmer remember that and work with that as a rule. You will find that every man who does is making farming go all right.

Anything which will help the land should be called farm manure. There are many little things on every farm allowed to go to waste which might be turned into a good profit by putting in the soil. How many waste their wood ashes? They form an important part in fertilizers, and are worth saving and putting on the land. If a farmer will determine not to allow anything to go to waste that will make fertility, and get so interested in it that others may call him a crank, he is pretty sure of becoming a successful farmer.

E. J. WATERSTRIPE.

### Catalogues Received

The Deming Co., Salem, O. Illustrated catalogue of spraying apparatus.

H. P. Wood, Honolulu, Hawaii. "Agricultural Possibilities of Hawaii."

Blair Camera Co., Rochester, N. Y. Illustrated catalogue of "Hawk-Eye" cameras and supplies.

Wick Hathaway, Madison, O. Illustrated catalogue of thoroughbred poultry and small-fruit plants.

Souvenir Pillow Top Co., 320 Broadway, New York. Illustrated circular of the "Burntower" pillow tops.

American Steel & Wire Co., Chicago. Sample copy of "Fence," containing useful information about wire fencing.

Peter Henderson & Co., New York City. Farmers' Manual of Pedigreed Farm Seeds. Also, "Everything for the Lawn."

F. Cranfield, Madison, Wis. Transactions of the Wisconsin State Horticultural Society. Price, to cover postage, 15 cents.

Kellogg Publishing Co., Three Rivers, Mich. Sample copy of "The Strawberry," a monthly devoted to every interest of the strawberry.

The Atlas Portland Cement Co., 30 Broad Street, New York. "Concrete Construction About the Home and on the Farm," an illustrated booklet giving full information on the subject.

The Jewell Nursery Co., Lake City, Minn. General catalogue of tree and small fruits. Also, "Trees, Shrubs and Plants," giving suggestions for planting and care. Price, 10 cents.

W. W. Miller, Secretary of the Ohio Department of Agriculture, Columbus, O. Fourth annual report of the Chief Inspector of Orchards and Nurseries. "The Fumigation of Nursery Stock." "The Insects Affecting the Black Locust and Hardy Catalpa."

# BARRELS OF AIR BURNED AS FUEL

New, Remarkable Stove—Ohioan's Great Invention—Consumes 395 Barrels of Air to One Gallon of common Kerosene oil making oil-gas—the New Fuel that looks and burns like gas!

Wood, coal and oil all cost money. **ONLY FREE FUEL IS AIR!** Unlimited supply—no trust in control. Air belongs to rich and poor alike. We can't burn air alone but see here! Our wonderful stove burns air and gas—very little gas—principally air. Takes its fuel almost entirely from the atmosphere.

A miniature gas works—penny fuel for every family—save  $\frac{1}{3}$  to  $\frac{1}{2}$  on cost—save dirt and drudgery—no more coal or wood to carry—ashes unknown—absolute safety.

**SEE HOW SIMPLE! TURN A KNOB—TOUCH A MATCH—FIRE IS ON. TURN AGAIN—FIRE IS OFF! THAT'S ALL.**

Astonishing but true—time-tested—proven facts—circulars give startling details—overwhelming evidence.

**NO SUCH STOVE SOLD IN STORES—UNLIKE ANYTHING YOU'VE SEEN OR HEARD OF.**

(From the Christian Standard.)

### Not Dangerous Like Gasoline

Which is liable to explode at any moment, causing fire, loss of life and property. This stove is so absolutely safe it won't explode and if a match were dropped in the oil tank it would go out.

This Oil-Gas and Air Generator does any kind of cooking that a coal or gas range will do—invaluable for kitchen, laundry, summer cottage, washing, ironing, canning, picnics, camping, and by placing an oven over the burner splendid baking or roasting can be done.

### Combination Cooking and Heating Stove

Another important feature is the invention of a small Radiator which placed over the burner makes a desirable heating stove for cold weather, so that it is adapted for any time of the year, and many people do away with the ordinary stoves entirely by using this stove with radiator for both heating and cooking.

While at the factory in Cincinnati, the writer was shown thousands of letters from customers who were using this wonderful oil gas stove, showing that it is not an experiment, but a positive success and giving splendid satisfaction, and as a few extracts may be interesting to the readers, we reproduce them:

L. S. Norris, of Vt., writes: "The Harrison Oil-Gas Generators are wonderful savers of fuel—at least 50 to 75 per cent. over wood and coal."

Mr. H. Howe of N. Y., writes: "I find the Harrison is the first and only perfect oil-gas stove I have ever seen—so simple anyone can safely use it. It is what I have wanted for years. Certainly a blessing to human kind."

Mr. E. D. Arnold, of Neb., writes: "That he saved \$4.25 a month for fuel by using the Harrison Oil-Gas Stove; that his gas range cost him \$5.50 per month, and the Harrison only \$1.25 per month."

J. A. Shaffer, of Pa., writes: "The Harrison Oil-Gas Stove makes an intense heat from a small quantity of oil—entirely free from smoke or smell—great improvement over any other oil stove. Has a perfect arrangement for combustion—can scarcely be distinguished from a natural gas fire."

Mr. H. B. Thompson, of Ohio, writes: "I congratulate you on such a grand invention to aid the poor in this time of high fuel. The mechanism is so simple—easily operated—no danger. The color of the gas flame is a beautiful dark blue, and so hot seems almost double as powerful as gasoline."

Mrs. J. L. Hamilton, writes: "Am delighted—Oil-Gas Stoves so much nicer and cheaper than others—no wood, coal, ashes, smoke, no pipe, no wick, cannot explode."

Hon. Ira Eble, J. P., of Wis., writes: "Well pleased with the Harrison—far ahead of gasoline. No smoke or dirt—no trouble. Is perfectly safe—no danger of explosion like gasoline."

Charles L. Bendeke, of N. Y., writes: "It is a pleasure to be the owner of your wonderful Oil-Gas Stove—no coal yard, plumbing, ashes or dust. One match lights the stove and in 10 minutes breakfast is ready. No danger from an explosion—"

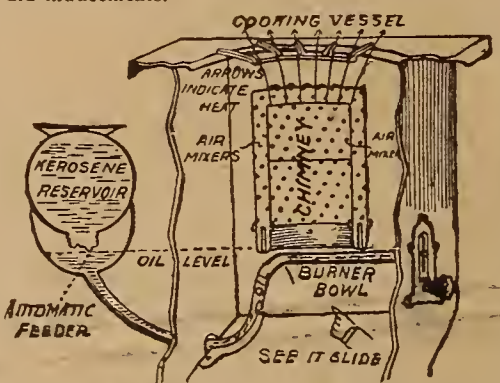
Because air is the only free fuel and no trust in control inventors have tried for years to find a way by which properties could be drawn from the atmosphere and used as fuel for general household purposes, thus producing the cheapest fuel obtainable.

To a Cincinnati genius heretofore unknown to fame must go the credit of solving this great question. Understand, you cannot burn air absolutely alone, but this new air generator actually takes its fuel almost entirely from the atmosphere, so much so as to take in 395 barrels of air while consuming one gallon of oil.

The time has come at last when our readers are no longer compelled to continually drudge in hot, fiery kitchens with coal and wood fires so ruinous to health and looks, for every family who desires can cook, bake and heat with oil and air gas, the wonderful new fuel which frequently saves from  $\frac{1}{3}$  to  $\frac{1}{2}$  on fuel bills. What a blessing this is to women folks, who for the first time in their lives can say, no more coal or wood, nor deadly gasoline to burn and kill, nor smoky oil wick and valve stoves.

### Thousands a Week.

Upon calling at the factory we find that this invention has caused a remarkable excitement all over the U. S.—that the factory is already rushed with thousands of orders, and the Company's representatives and agents are making big profits, as they offer splendid inducements.



SECTIONAL CUT OF GENERATOR.

As will be noticed from the engraving, this oil-gas and air generator is entirely different from any other stove—although its construction is very simple—and durable—last for years—no work—not even a valve, yet heat is under perfect control—no leaks, nothing to close or clog up.

Your hand upon a knob—a turn to right or left, the oil is automatically fed to a small steel burner bowl or open trough, when it is instantly changed into gas, which is drawn upwards between two red-hot perforated steel chimneys, all the while drawing in about one barrel of air to every large spoonful of oil consumed, making quick, intense heat, which is condensed into a small space for cooking or distributed through oven for baking.

Every drop of fuel consumed—goes into heat—making hottest gas fire—nothing wasted—requires no pipes or flue connections—use it anywhere about the house, office, or store—move it about as often as you like.

This invention has been fully Protected in the U. S. Patent Office, and is known as the Harrison Valveless, Wickless, Automatic Oil Gas and Air Generator, the only one yet discovered that consumes the carbon and by-products of the oil.

The extremely small amount of kerosene oil that is needed to produce so large a volume of gas makes it, we believe, the most economical fuel on earth, and the reason for the great success of this generator is based on the well-known fact of the enormous expansiveness of oil-gas when mixed with common air.

Kerosene oil from which oil-gas is made is sold by all grocers—buy as consumed—as you would for a lamp—gallon lots or two—let pennies do the work of dollars and save the difference. At last humanity is blessed with a cheap fuel that makes no dirt, ashes, soot—removing forever the greatest nuisance that women folks ever suffered.

What a pleasure to just turn the knob—touch a match—a beautiful gas flame appears—hottest fire—always ready—day or night—on or off at will—self-regulating—no more attention—could anything be more perfect?

It generates the gas only as needed—simple, handsome, durable, easily operated, and another feature is its perfect safety.



no smoke, no dirt—simply turn it off and expense ceases. For cheapness it has no equal."

**Agents Are Doing Fine—Making Big Money.**

**WONDERFUL QUICK SELLER.**

Head & Frazer, of Tex., writes: "Received stoves yesterday and have already disposed of them. Enclose order for \$81.00. Rush—we need them now. Sell like hot cakes. Prospects very bright. Sold 50 stoves in our own town."

J. H. Halman, of Tenn., writes: "Already have 70 orders."

C. W. Workman, of Ohio, writes: "Sold 15 to 18 stoves the last week."

J. C. Waterstraw, of N. Y., writes: "Am having wonderful success getting orders. Been at it 4 days and received 33 orders."

B. L. Huested, of Mich., writes: "Been out one day and sold 11 stoves. They sell themselves."

This is certainly a good chance for the readers to make money.

Thousands of other prominent people highly endorse and recommend oil-gas fuel and there certainly seems to be no doubt that it is a wonderful improvement over other stoves.

The writer personally saw the Oil-Gas Stoves in operation—in fact, uses one in his own home—is delighted with its working and after a thorough investigation, can say to the readers that this Harrison Oil-Gas Stove made by the Cincinnati firm is the only perfect burner of its kind.

It is made in three sizes, 1, 2 or 3 generators to a stove. They are made of steel throughout, thoroughly tested before shipping—sent out complete—ready for use as soon as received—nicely finished with nickel trimmings, and as there seems to be nothing about it to wear out, they should last for years. They seem to satisfy and delight every user, and the makers fully guarantee them.

### HOW TO GET ONE.

All the lady readers who want to enjoy the pleasure of a gas stove—the cheapest, cleanest and safest fuel—save  $\frac{1}{3}$  to  $\frac{1}{2}$  on fuel bills and do their cooking, baking, ironing and canning fruit at small expense should have one of these remarkable stoves.



Space prevents a more detailed description, but these oil-gas stoves will bear out the most exacting demand for durability and satisfactory properties.

If you will write to the only makers, The World Mfg. Co., 6075 World Building, Cincinnati, Ohio, and ask for their illustrated pamphlet describing this invention, and also letters from hundreds of delighted users, you will receive much valuable information.

The price of these stoves is remarkably low, only \$3.00 up. And it is indeed difficult to imagine where that amount of money could be invested in anything else that would bring such savings in fuel bills, so much good health and satisfaction to our wives.

### DON'T FAIL TO WRITE TO-DAY

For full information regarding this splendid invention.

The World Mfg. Co. is composed of prominent business men of Cincinnati, are perfectly responsible and reliable, capital \$100,000.00 and will do just as they agree. The stoves are just as represented and fully warranted and sent to any address.

Don't fail to write for Catalogue.

### \$40.00 Weekly and Expenses.

The firm offers splendid inducements to agents and an energetic man or woman having spare time can get a good position, paying big wages, by writing them at once and mentioning this paper.

A wonderful wave of excitement has swept over the country, for where shown, these Oil-Gas Stoves have caused great excitement. Oil-Gas fuel is so economical and delightful that the sales of these Stoves last month was enormous and the factory is rushed with thousands of orders.

Many of the readers have spare time, or are out of employment, and others are not making a great deal of money, and we advise them to write to the firm and secure an agency for this invention. Exhibit this stove before 8 or 10 people and you will excite their curiosity and should be able to sell 5 or 8 and make \$10.00 to \$15.00 a day. Why should people live in penury or suffer hardships for the want of plenty of money when an opportunity of this sort is open.

## Deafness Cured at Home

Don't waste your time and money in experiments. My method cures deafness and all head noises to stay cured. Absolute and positive proofs sent on application. No pain, no loss of time. The method is my own and cannot be obtained elsewhere, it has been tried and found true, it cures.

Write today for my book, "Deafness its Cause and Cure." FREE. Address GUY CLIFFORD POWELL, M.D.

782 Bank Bldg., Peoria, Ill.



**UP-TO-DATE THRESHING AND SAW MILLING MACHINERY.**

CATALOGUE AND SOUVENIR BOOKLET FREE.

ADDRESS

**THE AULTMAN & TAYLOR MACHINERY CO.**

49 Main St., Mansfield, Ohio.



## Gold Watch FREE AND RING

We positively give both a Solid Gold Laid Stem Wind American movement Watch highly engraved and fully warranted timekeeper equal in appearance to a Solid Gold Watch; also a Solid Gold Laid Ring, set with a Famous Congo Gem, sparkling with the fiery brilliancy of a \$50 diamond, for selling 20 pieces of hand-made jewelry at 10c each. Order 20 pieces and when sold send us the \$2.00 and we will positively send you the watch and ring; also a chain, Ladies or Gentle style. ALTON WATCH CO., Dept. 18 Chicago.

## This ELEGANT Watch \$3.75

Before you buy a watch out there and send to us with your name and address, and we will send you by express for examination a handsome WATCH and CHAIN C. O. D. \$3.75. Double hunting case, beautifully engraved, stem wind and stem set, fitted with a richly jeweled movement and guaranteed a correct timekeeper, with long Gold plated chain for Ladies or vest chain for Gents. If you consider it equal to any \$35 GOLD FILLED WATCH Warranted 25 YEARS pay the express \$2.75 and it is yours. Our 20 year guarantee sent with each watch. Mention if you want Gents' or Ladies' size. Address H. FABER & CO., 448, 28 Quincy St., CHICAGO.



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# FARM & FIRESIDE.



AN ILLUSTRATED FARM AND FAMILY JOURNAL

EASTERN EDITION

Vol. XXIX. No. 14

SPRINGFIELD, OHIO, APRIL 15, 1906

TERMS { 25 CENTS A YEAR  
24 NUMBERS





# FARM AND FIRESIDE

PUBLISHED BY

THE CROWELL PUBLISHING CO.

SPRINGFIELD, OHIO

Subscriptions and all editorial and business letters should be sent to the offices at Springfield, Ohio, and letters for the Editor should be marked "Editor."

## BRANCH OFFICES:

41 Park Row Tribune Building  
NEW YORK CITY CHICAGO

## Subscription Price

### One Year (24 numbers) 25 cents

Entered at the Post Office at Springfield, Ohio,  
as Second-Class Mail Matter.

The Date on the "yellow label" shows the time to which each subscriber has paid. Thus: April, 1906, means that the subscription is paid up to, and includes the April 1st issue; May, 1906, means up to and including May 1st issue, and so on. If your subscription begins with February it will end with next January 1st, which gives just twelve months.

The above rate includes the payment of postage by ns. All subscriptions commence with the issue dated the 15th of the month in which the order is received.

Subscribers receive this paper twice a month, which is twice as often as most other farm and poultry journals are issued.

Payment, when sent by mail, should be made in Express or Post Office Money Orders, Bank Checks or Drafts. When none of these can be procured, send the money in a registered letter. All postmasters are required to register letters whenever requested to do so. Do not send checks on banks in small towns.

Silver, when sent through the mail, should be carefully wrapped in cloth or strong paper, so as not to wear a hole through the envelope and get lost.

Postage Stamps will be received in payment for subscriptions in sums less than one dollar if for every 25 cents in stamps you add a one-cent stamp extra, as we must sell postage stamps at a loss.

When money is received, the date will be changed within four weeks, so that the label will answer for a receipt.

When renewing your subscription, do not fail to say it is a renewal. If all our subscribers will do this a great deal of trouble will be avoided. Also give your name and initials just as now on the yellow address label; don't change it to some other member of the family; if the paper is now coming in your wife's name, sign her name, just as it is on the label, to your letter of renewal.

Discontinuances.—Subscribers wishing their paper discontinued should write us to that effect and pay up all their arrears. If this is not done, it is assumed that the subscriber wishes the paper continued and intends to pay when convenient.

Always give your post office at the beginning of your letter.

### Potatoes in the Dark

THAT Western scheme of growing potatoes in a dark cellar, of course without tops, mentioned last fall under the heading, "A Potato Incubator," is now being worked in the East and South.

A little pamphlet is being sent out by some concern urging farmers to purchase rights to pack potatoes in crates and dose them with "potatoine" (whatever that may be), so as to make potatoes in the dark. Professor Massey, formerly of the North Carolina station, now of the "Practical Farmer," comments on this as follows: "Anyone who has had any experience with potatoes in cellars, knows that potatoes in a dark, warm and moist place will sprout and form small potatoes. But there is no increase at all, as all the growth is from material stored up in the potato by the assimilation of carbon the year before through the green leaves, and the new potatoes are simply formed from this material, since no new matter can be acquired until the tops make green leaves in the sunshine. So let the 'potatoine' humbug alone. If you want to waste some good potatoes to make a few new ones, you can do it in a dark, warm place by supplying them with moisture, but the crop will be smaller than the amount of seed used. No really new potatoes can be made until the plants make green leaves under the full sunshine in the field." All of which seems to me almost self-evident.

### Secrets in Agriculture

People like to be mystified. I know of no secrets in agriculture, however, that are worth paying for. If anybody asks you to pay good money for anything that he must cloud in secrecy, may this be a secret method of cultivation, or a secret recipe, or a secret remedy for any trouble of plant or beast, put him down as a fakir. The Spencer "Seedless apple" men have made much of the assertion that their wonderful fruit was evolved by a secret process of their own. Now facts are being brought out showing what has been clear to most of us all along, that their "secret process" consisted of simply taking scions from one of the many trees found all over the country which produce so-called "seedless" apples and inserting them in young seedling apple trees. And it may again be stated that not one among all these seedless apples thus far discovered has been found to be even fairly good in quality. I would not give room to a tree of this fruit except perhaps as a curiosity.

### Equal Laws for All

Theoretically we have the same laws for rich and poor. But there is a little more than just a faint suspicion that these same laws do not always find the same application in all cases. The man without money

## About Rural Affairs

BY T. GREINER

or political pull when convicted of murder is quickly sent to the gallows or the electric chair. The rich murderer who can spend thousands of dollars for counsel, or command sufficient political pull, like Lawyer Patrick, may prolong the struggle for his life for half a dozen years, and finally perhaps make good his escape. Recently a member of New York City's aristocracy who had carelessly (although of course unintentionally) run over a child with his automobile, was sentenced by a French court to pay a fine and be committed to jail for three months. He paid the fine, which, even if heavy as considered by the common standard, is no particular punishment for that class of people. But through the influence of the United States Government this rich offender is very likely to be saved from having to serve his term in jail as any common mortal would have to under like circumstances. If the impression should gain ground all over the universe that a rich American, by reason of his money and his pull with the home government, can escape with a fine for an offence for which a poor man under the same circumstances would have to go to jail, the respect for the laws and their execution must necessarily suffer everywhere, and it may come to pass that the recourse to mob law, as in the case of another New York millionaire in Italy, the other day, may come to be of common occurrence, and have a show of being at least excusable, if not justifiable.

### Black Locusts

The Ohio Experiment Station warns against the misrepresentations of certain tree peddlers who urge their farmer victims to buy black locust trees at twenty-five dollars a thousand, claiming that the trees will grow to post size in four to six years; that they will not sprout from the root, etc. This warning comes quite timely, especially as many people have been led to think seriously of planting these trees along the line of fences so as to serve as live posts. It is true that the black locust is one of our valuable timber trees. Good posts may be grown in about ten years' time from planting, and ties in fifteen or more. But the trees should be set in solid blocks. How the black locust will sprout from the roots, and what a nuisance it can turn out to be if planted singly or in a fence row, I can show you right on my lawns. Plant them in a block or not at all, and for the trees themselves, we can go to some reliable nursery, such as exist in many parts of the country, and buy black locust trees at from six to ten dollars a thousand. The Ohio station also calls attention to the fact that live stock, especially sheep, are almost sure death to young locust trees if allowed to pasture where they are growing. Mice are liable to damage or kill black locust trees standing in sod. On the whole, it will be wise to think before planting locusts, and especially to go slow about buying trees from agents at twenty-five dollars a thousand.

### Willow Culture

In some parts of central New York, and perhaps in other places, basket willows are grown to quite an extent, and in many cases found to be a remunerative crop. Undoubtedly there are sections that have just the land, and the opportunities of sale, needed to make this industry a success and profitable. The Department of Agriculture now has some experiments under way in the cultivation of basket willows, and on application will furnish a bulletin giving information and instructions about planting, etc., and perhaps also furnish choice willow cuttings. Bottom lands that are too cold and too wet for ordinary crops might in many cases be profitably utilized for willow culture.

### English Walnuts

At our recent horticultural meetings in this state (New York) some one living near Lockport (about twenty miles from here) had on exhibit a lot of very good home-grown English, or rather Persian, walnuts, as also photographs showing his groves of these interesting trees from which the nuts were gathered. At the February meeting of the Niagara County Farmers' Club he gave a talk on this subject, and expressed himself very enthusiastically on the promising outlook. In California the culture of English walnuts is a big industry. In the East we have scattering trees, even as far north as Rochester, and Niagara-on-the-Lake in Canada, with a few small groves on the

shores of some of the little lakes near the center of the state. The older trees in protected situations, in the suburbs of cities, etc., seem to be quite hardy, although young trees usually suffer badly in severe winters. At one time I was very enthusiastic about growing English walnuts in New Jersey or New York. For a few years then I had control of two large trees in New Jersey that gave me regular and good crops of nuts of good quality. I raised a lot of trees from these nuts, supposing them to give hardier trees than those that one could buy from our nurseries. These trees were planted in various parts of the country, about fifteen years ago. I do not know of a single tree of them all that has grown to any size or borne a single nut. There may be some of them still eking out a miserable existence. Yet with all this experience, I still consider it likely that we could establish interesting and possibly profitable groves by discovering and planting nuts selected for hardiness. The Norman Pomeroy English walnut may be the nut for this purpose, for all I know. If not, we must look for others.

### San Jose No Respector of Trees

A New York City reader asks me whether it would be safe to plant plums, quinces, cherries, etc., in an orchard of apple and pear trees nearly ruined by the San José scale, adding that no spraying will be done. No, emphatically no. The pernicious scale is no respecter of trees. It will ruin quinces as quickly as pears or apples, and in fact, thrive on any tree on which accident has placed it. To plant new trees without spraying will only prolong the agony, and propagate the scale. But what possible excuse can there be for this criminal resolution not to spray? The inquirer should know that he harbors, protects and propagates one of the most destructive enemies not only of his own trees but those of his neighbors. If he cares nothing about the destruction of his own orchards, he has no right to breed and send a horde of destructive agents into the orchards of all of his neighbors, and possibly do them irreparable injury thereby. He is under moral, and even under legal obligation to do one of two things, either destroy all his trees, and refrain from setting out new ones until after the place has been entirely cleared of every scale; or try hard to get rid of the scale by thorough spraying. So long as he does not care much about the trees anyway, I would advise him to spray with clear crude petroleum, after the buds have just begun to break in spring, and do it thoroughly. It is easily and quickly done. The application is sure to kill every scale it touches. And it will set you straight with the state law, and besides relieve your conscience.

### Make Spray Mixtures Right

A Pennsylvania reader asks me whether the prepared commercial Bordeaux mixtures are as effective as those made at home from bluestone and lime. I have for a few seasons made use of several preparations offered under various trade names, some of them mere Bordeaux mixtures and others Bordeaux mixture combined with arsenites, getting apparently the same results as from the average homemade mixtures. And yet, I do feel safer when I make my own in the proper way than when using the concentrated commercial goods. The truth, however, is that nine out of ten people fail to make the mixture in the proper way, and doing this, they should not wonder when the effect is not all that was expected. The correct formula is as follows: Dissolve five pounds of copper sulphate in a barrel or wooden tank containing twenty-five gallons of water. Slack five pounds of best quicklime in another vessel and add sufficient water to make twenty-five gallons of milk of lime. Unite these two solutions by pouring one pailful or dipperful of each at the same time into a third barrel or wooden tank. The milk of lime should be well stirred while being dipped from the barrel, and should be passed through a fine wire screen when poured into the mixing barrel. Stir the whole mixture thoroughly and often until the whole is united. Afterward stir it frequently while spraying. This is the right way. Of course, the poison, whether this be Paris green or arsenate of lead (the latter probably the best and most effective of all these arsenical poisons) or any other, may be added at any time, to be kept uniformly distributed through the mixture by frequent thorough stirring. Most operators were in

the habit of simply pouring one solution into the other. This is wrong, and does not result in the desired intimate chemical combination. This year I propose to rig up two barrels with ordinary pumps, one barrel to contain the copper solution, the other the milk of lime, and to pump the two liquids together at the same time into the third barrel. This should give me an ideal mixture. It is time for all to cease making poor Bordeaux mixtures and then complain of their ineffectiveness.

### Profitable Forest Planting

If I were in the position, or rather in the location, for growing forest trees, namely, having broad acres of comparatively cheap land such as may be found over a wide range of territory all over the United States, and some of this perhaps hardly good enough for profitable grain growing, I am sure that I would make at least a start or trial in forest planting. I once told in these pages, as an example of rapid tree growth, of a poplar tree being planted here in 1889 and cut down by me about six years ago, then being eighteen inches in diameter a foot or so from the ground surface. Poplar wood is readily salable for paper-making purposes, I believe, although I am not informed about the price usually paid for it per cord. It seems reasonably certain that a poplar plantation in a place where readily available for transportation to a near paper mill, could be made to yield good returns within a comparatively short period of time. The Ohio Experiment Station now tells of a number of experiments having been made in growing catalpas and black locusts for posts. The groves were started fifteen to twenty-five years ago. The catalpa groves, none of which had received much attention in the way of pruning, cultivating or thinning, and most of which had been planted too closely, showed an average yield of 2,777 posts per acre, sixty-three per cent of which were first class, valued at \$238.08 per acre, or \$10.30 per acre each year since the trees were planted. Black locust made even a better showing. The number of posts produced per acre was 3,560, ninety per cent of which were first class, valued at \$341.76 per acre, or \$17.98 per acre per year, the grove being nineteen years old. Growing Norway spruce for Christmas-tree purposes also seems to me a promising field, and one promising still larger returns in far less time.

### Trusts, Unions and Co-Operation

The giant trusts of the country are aggressive. They are supposed to be formed for the very purpose of controlling prices and killing off all competition, whether by fair means or foul. As such their right to existence is based on the brute force of money and on what influence money controls, not on justice or legality. Against any oppressive and unlawful combination of capital, the laboring men of the country (and they include the farming classes) must be conceded the unquestionable right to combine for the purpose of guarding their interests against heavy odds. Such combinations, whether called labor organizations, unions, or by whatever name must in the very nature of things be protective rather than aggressive. They must stand on law, order and common sense. The labor unions have hurt themselves materially; almost hopelessly, by attempting to out-Herod the unlawful aggressiveness of the trusts to meet competition with brute force. It is good law and common sense which guarantee to every person the right to manage his own affairs so long as he keeps within the law, and to sell his labor in any market that he can find without being compelled to listen to the arbitrary dictates of any set of men as to prices and hours. Those who try to kill competition in labor by inflicting indignities and bodily harm on the "scab" for his refusal to join the union only kill the union and defeat the good and desirable ends for which the unions were organized. It is right and proper for farmers and fruit growers to form coöperative associations or stock companies. They will have to do it for their own self-protection, and they can accomplish much thereby, especially in reducing expenses, in improving the product by better grading and various other means, by more even distribution, thus securing better prices, etc., and all this without hurting any other interests, in fact rather to the benefit of the general consumer. There is not the least danger that farmers will ever attempt to curtail or kill competition by persecuting a neighbor who may be unwilling to join in these coöperative efforts, or by cutting down his orchards or ruining his potato fields. The farmers' "trust," if we are ever going to have one, will be the very opposite of the giant trusts of the present day, protective mainly, and aggressive only in a beneficial sense; never oppressive, but a blessing to the country at large.



Tree Protection

EVERY rough snowstorm or blizzard that comes along during the winter makes me regret that I did not plant more evergreen wind-breaks than I did. If I could go back ten years I would set out not less than five hundred more spruce and cedars, and shut out the winds that drift the snow in all the exposed spots. The rows of evergreens I have shut out a great deal of the worst winds, but the rows do not extend far enough to shut out all. Many a time I have shoveled a path through the deep snow to the barn and other buildings, and the path has remained open all day, while the paths shoveled by my neighbors have filled with the drifting snow within a half hour. Their yards are exposed to the winds from all directions. Then wife has no trouble with high winds on wash day, while her neighbors frequently are obliged to postpone the washing or have their clothes whipped to a frazzle on the line.

I have often advised young farmers to plant wind-breaks about their homes and yards, and I am well satisfied that the advice cannot too often be repeated. I have lived in farm homes that were well protected by natural or planted groves, and in others that were fully exposed to every blast, and I know the many advantages of the tree protection, and I think the old pioneers were sensible in clinging to the timbered sections, even if the soil was not so rich as that in the open. All our western country is swept by blizzards in winter and hot winds in summer, and to have one's home and yards protected from these is worth many times the cost of trees and land. One farmer whose home and yards were protected by closely planted thickets of maples and cottonwoods often declared that he believed they saved him a full hundred dollars' worth of feed and fuel every year. He said the thickets did not look quite so nice as rows of evergreens, but as they grew up to an effective height in seven years after planting the little seedlings, he was getting real value from them about six years sooner than he would from evergreens, to say nothing about the difference in first cost.

A young farmer once wrote me that he had bought a farm in Iowa, and that his home was exposed to every "blizzard and blast" that came along, and he wanted to plant a wind-break of some sort at once, but he could not possibly spare more than three dollars for trees, and he wanted to know how to invest it to the very best advantage. I suggested that he offer the boy or girl of some farmer, who had several large soft maples on his farm, a dollar to gather him a half bushel of the seed when it fell off the trees in May. Then in the fall he should invest another dollar in white ash seed. He should prepare the soil in the spring the same as for a garden, and plant the maple seed in it just as soon as it was gathered. If the soil was rich and the seedlings well cared for they would make a growth of two to four feet that season. The following spring he could set them where he wanted the wind-breaks. I suggested four rows five feet apart, with plants two feet apart in the rows, as he did not wish to take up more land than was necessary. The white ash seed I would plant very early the following spring after purchasing, in well prepared, rich soil. Cultivate well, and by fall they will be nice little trees. Plant in a single row twenty feet away from the maples, setting them two feet apart in the row. Keep the soil loose and free of weeds by running the corn cultivator on either side of the row as soon as possible after every shower, and they will grow like weeds. This row will, if well cared for, make a wind-break that will check all the blizzards and storms, and catch the drifting snow. When it becomes effective the maples may be cut out.

Eight years afterward he wrote me again. He said he had followed my advice, and his wind-break was doing him fine service. He had planted the maples outside of the row of ash twenty feet, and they had grown so fast that he had to cut out one row to keep them from crowding the ash. The latter, he said, were as tall as the maples, and were growing into a fine "wind wall." He had decided to cut out the middle one of the three rows of maples still standing and leave the other two. He said he would not take \$500 for the windbreak in summer, nor \$2,000 for it in winter. A row of spruces or cedars makes the best wind-breaks one can plant, but it does not become effective for several years; a longer time than most people care to wait. A thicket of soft maples—six or eight rows, with the trees about two feet apart in the row, is the cheapest break one can grow, and it will become effective quicker than any other. The seed must be gathered in May, as soon as it falls from the trees, and the soil should be already prepared for it and the planting be done at once. In rich soil I have grown seedlings to a height of

five feet the season the seed was planted. The farmer who allows his home and yards to be wind swept year after year when it can be prevented so cheaply and easily is very shortsighted.

The Neighbors' Hens

A lady living in the suburbs of a nice little Indiana town writes, "Last year I was almost pestered to death by the fowls of my neighbors. They would scratch up my garden, ruin my flower beds and soil my porches in spite of all I could do to prevent it. I have a good, chicken-tight fence around my lot, but they fly over it. When I caught them and carried them back to their owners and asked them to keep them at home they simply abused me. I have about decided to quietly kill all that I can catch this spring and bury them. What else can I do?"

I think I would not kill the hens. That would be something like shooting a sheep. Last year a man situated about as this lady is wrote me for advice. I told him to set a couple of steel traps for the hens. These would catch them by the toes and would not hurt them very much. When he released them to have a pair of shears with him and cut the flights (the long feathers) off one wing. This would do the birds no harm, but it would effectually prevent them from flying over his fence. I asked him to report effect at close of season. He did so. He said, "That scheme proved to be just the trick. After clipping a hen she never troubled me any more. One of my neighbors nearly had a fit when he found one of his hens had her wing

All Over the Farm

Test of Commercial Cultures of Nitro-Fixing Bacteria

The extravagant and misleading claims contained in some of the advertising matter now appearing in regard to inoculating material for legumes make it necessary again to call attention to the limitations of the value of inoculation. Summarized from our bulletins, they may be stated as follows:

No beneficial results can be expected

Results of tests of samples of cultures of nitrogen-fixing bacteria obtained in the open market.

Manufacturer.	Legume.	Condition of culture.	Remarks.
Griffith & Turner, Baltimore, Md.	Alfalfa.....	Poor.....	Badly contaminated.
Do.....	do.....	Worthless...	Almost sterile; a few colonies of foreign bacteria present.
Do.....	Garden pea.....	Fair.....	Some foreign bacteria and molds present.
Do.....	Red clover.....	Worthless...	Foreign bacteria and molds present.
Do.....	Vetch.....	do.....	do.....
National Nitro-Culture Co., West Chester, Pa.	Alfalfa.....	Good.....	Contaminated with yeasts and molds.
Do.....	do.....	Very good...	Slightly contaminated.
Do.....	do.....	Worthless...	Foreign bacteria and yeasts present.
Do.....	do.....	Good.....	Yeasts present.
Do.....	do.....	Worthless...	Foreign bacteria, molds and yeasts present.
Do.....	Bean.....	Fair.....	Rather slow in developing; contaminated.
Do.....	do.....	Good.....	Some foreign bacteria and yeasts present.
Do.....	Garden pea.....	do.....	Many yeasts also present.
Do.....	do.....	Poor.....	Badly contaminated.
Do.....	do.....	Fair.....	Contaminated.
Do.....	do.....	Worthless...	Foreign bacteria, yeasts and molds present.
N. L. Willett Seed Co., Augusta, Ga.	Alfalfa.....	do.....	Do.
Do.....	Garden pea.....	Good.....	Some foreign bacteria and a few yeasts present.

Approved:  
JAMES WILSON, Secretary of Agriculture.  
WASHINGTON, D. C., March 6, 1906.

Respectfully submitted.  
B. T. GALLOWAY,  
Chief, Bureau of Plant Industry.



PORTABLE SAWMILL AT WORK ON THE FARM

The Portable Sawmill

The portable sawmill is a comparatively new acquisition to the farm. Only a few years ago the farmer was hauling his logs to the sawmill to be sawed into lumber. Now the sawmill comes to the farmer. The logs are drawn in the winter and piled in some convenient spot, and during the summer months the mill, being easily transported, is moved around and saws them up.

W. C. EATON.

Sorghum

Sorghum is one of the most profitable field crops. When the cost of cultivating an acre of sorghum is compared with the cultivation of any other crop it will be seen that sorghum has the most in its favor. Sorghum will respond to good cultivation as readily as any other crop; but at the same time it will bear neglect with less harm than any other. By using a small amount of fertilizer the crop can be grown on land that would be worthless for any other crop and make paying returns.

Thin land makes a better quality of syrup

than stronger soils, and with much less labor in boiling. My plan is to take the poorest land I have, break it deep, work the surface fine, make rows two feet apart one way and three feet the other; put five or six grains in hills with fertilizer, using about one hundred pounds to the acre, and thin the plants to three stalks to a hill. All the work necessary is to keep the crop clean, and upon the land I use there is very little trouble about that.

One acre of corn planted on such land as I use for sorghum would not produce ten bushels of corn, even by using a greater amount of fertilizer. The corn would be worth five dollars and the fodder about two dollars more, making seven dollars. Sorghum on the same land would yield one hundred gallons of excellent syrup, worth fifty cents a gallon, and four dollars worth of blade fodder. The cost of working sorghum into syrup is ten cents a gallon, making the net proceeds forty-four dollars an acre.

If the syrup is not wanted the fodder can be cut like corn fodder and will yield double the quantity and of much better quality.

D. B. S.

FRED GRUNDY.



## Arsenical Poisons

PARIS green has some fungicidal value of its own. That much seems to be settled by station experiments and field experience of growers. In some cases the blight has been partially checked by the simple application of Paris green water to the foliage, and in other cases the effect of Bordeaux mixture as a check to blight has been apparently intensified by the addition of Paris green to the mixture. It would seem, therefore, that Paris green has an important advantage over other arsenical poisons, especially for use on potatoes. We know nothing as yet what arsenite of lime or arsenate of lead will do in this respect. Bordeaux mixture is just the thing that must be relied on for the protection of potato vines from blight attacks, and any poison that will prevent the mutilation of the potato foliage by potato and flea beetles will also have a tendency to lessen the dangers from the spreading of the disease. Arsenate of lead gives me quicker and more certain results, with greatest safety, than any of the other poisons, even on potato vines, but especially on melon and cucumber and similar vines. Even while admitting the fungicidal value of Paris green, I cannot shake off my preference for arsenate of lead.

## Florence Fennel

F. R., of Jeffersonton, Ky., gives the following about Florence fennel, recently mentioned in these columns: "We have grown it to some extent, and with success on different soils, cultivating it like any other garden plant. It is a perennial, having an airy, graceful foliage. We use it largely for flavoring. In some parts of Italy they blanch and use it like celery on the table. If you have any seed, sow it in early spring, and transplant to the proper distance."

In Thorburn's catalogue I find the following directions of culture: "Sow in the spring in rows sixteen to twenty inches apart. Thin out so as to have the seedlings five or six inches apart, and water as plentifully as possible. The plant is usually eaten boiled. In flavor it resembles celery, but has a sweet taste and a more delicate odor." Americans sometimes get into the notion of growing and using these foreign vegetable favorites, and it may be well to get at least acquainted with this so far comparatively little known "Florence fennel."

## Growing Sage

Mrs. E. C., a reader in Pike, N. Y., desires some hints about growing sage, in regard to soil, location, etc., and to the changes of "making something out of it." The broad-leaved sage is grown to a considerable extent as a market garden crop, and works in well with other produce where a general retail trade is carried on. It is an easy crop to raise, as it succeeds on any good sun-exposed garden land, and has no enemies, either of insect or fungous character, worth mentioning. It is often grown as a second crop following early beets, peas, lettuce, etc. The easiest way to start a plantation is to sow the seed, either in flats under glass, or in early spring outdoors, and transplant where wanted, in rows fifteen or more inches apart, with plants about ten inches apart in the rows. By the free use of the garden rake, the wheel hoe or common hoe, the ground is kept free from weeds, and in September, each alternate row or plant may be cut for bunching. The remaining plants soon fill the bed, and may then be cut and marketed. Sage is a perennial, also propagated easily by division or from cuttings both of green and mature wood. For home use a few plants may be kept for several years in an odd corner of the garden, and the young shoots cut annually. The profits from this crop depend, of course, on the chances of sale. It may also be grown and dried on a large commercial scale. What the chances of profit are in this field, I do not know.

## Melon Blight

Inquiries about melon blight continue to come in. A reader manures his melons with stable manure in the hills, and thinks that may possibly cause the trouble. Melon and other vine plants are subject to a number of plant diseases, and much remains yet to be learned about most of these. Some of these diseases are probably of a bacterial character, and usually affect the entire plant at once, soon killing it. I have never yet heard of a remedy for such. If soil and season are favorable, the plants will probably remain in health, and I have not noticed that the practice of applying manure or fertilizers in the hill, if these are thoroughly incorporated with the soil, would tend to make the plant more susceptible to the disease. The mildews and other forms of fungous diseases which spread on the leaves, however, may be, at least to some extent, kept under control by keeping the vines well covered

with a well-made Bordeaux mixture. The applications, however, should be made early and repeated often enough to protect the plants all the time. With arsenate of lead added to the mixture, especially for the earlier treatments, insect enemies, including flea beetles and the yellow-striped beetle, are kept off, thus preventing mutilation and laceration of the foliage by which fungous diseases are often given additional avenues of access. It is never safe to omit this treatment.

## The Globe Tomato

John M. Moore, a Chicago reader, writes: "I noticed with regret your unfavorable comment on Livingston's Globe tomato. I had sixteen plants trained to a trellis last year, with two stems each. They seemed to me the most beautiful of the many varieties I had seen. They were fairly early, prolific, of fine flavor, and while containing somewhat large seed cells, by no means watery or soft. My specimens parted from the vine easily, like Magnus, while you stated that they broke off with the stem adhering to them. Tomatoes are considerably in demand in this suburb for serving whole at luncheons, and for that purpose I think the Globe beats them all." The Globe is certainly a very attractive tomato, and may please many, according to their standard of excellence, or to the purposes they have in view. Tastes differ.

## Bones and Rubbish for the Garden

I. S. D., of Aurora, Ill., writes: "Can a small quantity of bones, say thirty or forty pounds, be made available as garden fertilizer without costing more than they are worth? I have no hardwood ashes. Also a wheelbarrow load of old boots and shoes? Are not woolen rags worth more than one half cent a pound for fertilizer? I have a small garden patch in town, and it is pretty well worn out." With a supply of any kind of unleached wood ashes, hard or soft, small quantities of bones may be made available for a garden fertilizer with some trouble and delay; but without them there only remains the treatment with sulphuric acid which I would by no means recommend to anyone except those who can do it on a business scale. When you have a small quantity of bones, old shoes and boots, and other rubbish, the best way to dispose of these materials is by means of fire. This drives off all nitrogen and all combustible matter, leaving nothing but the mineral plant foods to use on the land in the form of ashes; but it is the best we can do under such circumstances. I usually make an annual spring roast of rubbish. I start a fire with brush, tree and vineyard trimmings, old tomato vines, sunflower stalks and stumps, the rakings from the garden before plowing, old bedding and similar combustible rubbish. To this, when well under fire, are added all accumulations of old bones, shoes and boots, and many other things too numerous to mention. The oyster shells, when we had them, and yard rakings also were disposed of in this manner. I used to draw and shovel the finer stuff, especially rakings containing wet sawdust, rotten wood or even mold and soil, shells, old sods, etc., over the top of the glowing mass, and keep the pile smoldering for a day or two, or until all reduced to a powdery mass rich in lime, potash and phosphoric acid. This scattered over the garden has never in my experience failed to produce good results. My practice is to cover the heap, in the last stages, rather tightly, and if necessary sprinkle water over it, so as to prevent complete combustion. The smoky smell of the charred remains due to the creosote is also a good insect repeller, for which reason small quantities of this ashy heap may be mixed with the soil in melon, cucumber and squash hills with advantage. But, after all, I would advise our friend to try to get a few loads of old stable manure, accumulations from a near-by blacksmith shop, hen or pigeon dung, etc., for his well-worn garden patch.

## How Much Mixture

It is not easy to answer the question, how much Bordeaux mixture will be required for an acre of potatoes by giving a definite number of gallons. Much depends on the size of the vines and the manner of planting. Many growers plant in hills three feet apart each way; others in rows three feet apart with the plants a foot or so apart in the row. While the plants are young, and only a short squirt is required to cover each plant, we may go over an acre of ground with a very few gallons of the spray liquid.

## Gardening

T. GREINER

When the vines completely cover the ground, it may take a barrel of the liquid to do the job as thoroughly as it should be done. If you use two or three barrels of spray mixture for the acre of potatoes during the season, seasoning the liquid every time, especially during the earlier treatments, with Paris green or arsenate of lead in sufficient quantity (half a pound of Paris green, or two pounds or even more of arsenate of lead to each barrel), you will be reasonably sure of keeping your vines fairly free from blight and insect injury.

## Ornamental Asparagus

A lady reader asks what treatment is required for "the fine variety of asparagus fern." I suppose that she means that delicate appearing, feathery ornamental asparagus, the *asparagus sprengeri*. This is a very common house plant, and one of the best drooping or trailing plants, and of easy culture, as it does well in any soil, although it likes a shady place and plenty of water. This plant is also known as "Emerald Feather," and valuable under whatever name you may have it.

## Onion Plants for Transplanting

My Prizetaker plants in open ground, notwithstanding their unprotected position and the constant exposure to freezing and thawing almost all winter long, are yet alive, but I fear for their safety during the trying weather of coming March and possibly part of April. Last year I wintered successfully a lot of plants of the Silverskin onion, and transplanted them in the latter part of April. They made good bulbs in June. Seed of these was sown about September 1st. No matter how the present experiment with the Prizetaker plants pans out, the coming fall I propose to sow the seed September 1st, or two weeks earlier than it was sown for them last fall. I do believe that we can find a way to grow these plants in open ground and winter them successfully, and thus save the trouble and expense of growing our onion plants for transplanting under glass during the winter (February and March). J. E. W., of Fredericktown, Ohio, however, tells me that he has planted for the last two seasons, in a small way, Maule's Commercial onion, claimed to be an improved strain of the Prizetaker, planting seed in hotbed about April 1st, and transplanting the middle of May, and harvested a good crop from first to fifteenth of September. These onions of the Prizetaker type seem to be among the hardiest of all onions, being excelled in this respect only by the White Portugal (Silverskin) and possibly others of the same type. The Commercial I find to be a good onion, resembling the Prizetaker very closely, but possibly a trifle earlier.

## Keeping Onions

W. J. M., a South Bridgton (Maine) subscriber, says he keeps his onions until nearly hot weather by storing them with the tops all on, but being sure they are quite dry before putting them into the cellar, where they are spread out on elevated benches with boards around the sides. To this I have to say that success in keeping onions hinges mostly on keeping them dry, even more than on keeping them cool. A well-cured onion has very little top, and what little there is usually rubs off and dwindles away during the repeated handling. Onions that have any considerable amount of top when put into storage will not keep well, as such tops are apt to contain or gather moisture.

## A Bean Query

The red kidney bean is a bush sort, and quite popular in many places as a shell bean. It is not used as a snap bean. For a green snap bean I know of nothing better than the "Stringless" offered by most seedsmen. Some of the latter also list the new "Hodson." This I have not yet tested. But I found some pods in Buffalo last year, and they were not only most attractive, but also brittle as glass, and I shall plant this sort with a good deal of confidence.

## Contact Insecticides for Insects that Suck

KEROSENE-EMULSION

Place two gallons of ordinary kerosene in a warm place, either in a warm room or in the sun, and allow it to become as warm as possible without danger from fire. Boil one pound of laundry or whale-oil soap in a gallon of soft water until completely dissolved. Remove the soap solution from

the fire, and while still boiling hot, add kerosene and agitate for ten minutes, or until the oil is emulsified, with a spraying pump by forcing the liquid back into the vessel from which it was pumped. When the liquid is perfectly emulsified it will appear creamy in color and will flow evenly down the side of the vessel when allowed to do so. Care should be taken to completely emulsify the oil and this is accomplished much more easily when the mixture is hot. This strong emulsion may now be readily diluted with water and used, or it may be stored away for future use. When cold it becomes like sour milk in appearance and should be dissolved in three or four times its bulk of hot water before diluting with cold water. If the water is at all hard, "break" it by adding a little sal soda before putting in the soap.

Small amounts of this emulsion may be made by using the ingredients in small quantities, but in the same relative proportion.

## WHALE-OIL SOAP KEROSENE-EMULSION

This is made with whale-oil soap in place of the common laundry soap. It is superior to the plain emulsion in some ways.

## PYRETHRO WHALE-OIL SOAP KEROSENE-EMULSION

To one gallon of the undiluted emulsion made with whale-oil soap, add one ounce of pyrethrum. Stir well and dilute before applying.

## WHALE-OIL SOAP

This remedy has the advantage of being ready made, requiring no preparation other than that of dissolving. It may be used in winter or summer. In winter it should be put on warm. It costs from three and one half to five cents a pound when purchased in quantity. For a winter spray, against the San José scale, or any other scale, it should be put on at the rate of two pounds to a gallon of water. Each part of the tree should be wetted by the liquid, and the work should be done toward spring if possible, but before the buds commence to swell. It sometimes kills the fruit buds of peach and plum, especially is this true if the spraying be done in the early or middle part of the winter.

A summer spray, against plant lice, etc., is prepared by dissolving one pound of the soap in from four to six gallons of water, and applying as in the case of kerosene-emulsion.

## INSECT POWDER, BUHACH, PYRETHRUM

This valuable remedy has one drawback, its cost. It is too expensive for use on a large scale. It kills insects through their breathing pores, but is harmless to man and beast. It will kill many of the insects of the garden if dusted on or mixed with water in the proportion of one ounce to two gallons of water.

Use the powder when it is undesirable to use poisons, but never buy any unless it comes in tightly sealed packages. It loses its strength on short exposure to the air. An hour will suffice to weaken it. It must be applied from time to time as it quickly loses its strength.

## TOBACCO

Tobacco, in the form of dust, may be obtained of the large manufacturers at the rate of from one and one half to two cents a pound. It is useful in destroying root lice, especially woolly aphis, in young trees, and in keeping insects from garden truck. It should be worked into the ground liberally for root aphids.

An infusion, or tea, made from waste, will kill plant lice if sprayed on when they first appear. Steep in sufficient water to cover the waste stems and dilute until the color is that of strong tea.

## DRY-SLAKED LIME

Finely slaked lime is often useful because of its slight caustic properties. Against such larvae of saw-flies and beetles as are sticky, for instance those of the cherry slug and asparagus beetle, it may be used as a substitute for poison, if the latter, for some reason, is undesirable.

Stone lime may be slaked with a small amount of hot water, using just enough to turn it to a dry powder. Such slaked lime is as fine as flour and very soft to the touch, having very little grit. Use a metal pail or kettle to slake in, as the heat will set fire to wood. Do not use too much water, and where possible use freshly burned lime.

## CARBOLIC-ACID EMULSION

Hard soap, one pound, or soft soap, one quart.

Water (boiling), one gallon.

Crude carboic acid, one pint.

The soap is to be dissolved in the water and while it is still boiling hot the acid is added and the whole churned by forcing the stream from the nozzle into the kettle, just as is done in making kerosene emulsion. Dilute with thirty times its bulk of water and apply. If any injury results from the use of this emulsion, dilute it still more. Use the crude carboic acid in making the emulsion, as it is very much cheaper and just as good.—Rufus H. Petit in Bulletin 233, Michigan Experiment Station.



## Specializing in Fruit Growing

**M**ANAGER E. H. SHEPARD, of the two fruit-growers' unions of Hood River, Ore., at the meeting of the Northwest Fruitgrowers' Association, at La Grande, Ore., spoke as follows:

"I will now endeavor to explain in a systematic way the methods employed that have been conducive to securing for Hood River such fancy prices as two dollars and ten cents to two dollars and fifty cents for Newtowns, and two dollars and sixty cents to three dollars for Spitzenbergs free on board, and the only grand prize given by the St. Louis Exposition to a single county in the United States for green fruit.

"Hood River fruit growers are specialists to the extreme limit. We grow practically nothing but fruit, and of that but two kinds, apples and strawberries; the apples are practically limited to two varieties, Newtowns and Spitzenbergs, and the strawberries to one, Clark's Seedling.

"The point I wish to bring out here for the benefit of everyone is that each individual, each locality, is particularly adapted to some one thing. To do that one thing well and better than anyone else will surely bring success and rich harvest. To illustrate, Los Angeles and vicinity is famous for oranges and lemons, Fresno for grapes, Vacaville for apricots, Sacramento River for peaches. In Colorado Grand Junction and Paonia are celebrated for apples, Rocky Ford for cantaloupes. Parts of Missouri beat the world on our old friend, Ben Davis, and, by the way, don't forget it is a grand state, and supplies the government with more and better mules than any other state in the Union.

"Do as Hood River and other districts have done, find out what you can grow to perfection for which there is a good demand, and give it every care and attention. Nurse it, eat with it, sleep with it. We began at the beginning by buying the best trees, the price being no object. We buy them of reliable nurserymen who we know select their scions from parent trees known to be good bearers and producing fruit of fine color and excellent quality.

"We cultivate with unceasing care, and in our orchards you will always find the moisture retaining dust mulch and no weeds.

"We prune and shape the trees with the same care and fondness we would prune our child of bad habits and shape its character.

## SPRAY THOROUGHLY

"We spray thoroughly for every disease or insect pest our orchards have or may have. Spraying now is practically a definite science, and by untiring energy and eternal vigilance every orchardist can grow a clean crop of apples. From the success achieved last year with five and six sprayings with the arsenate of lead, we are convinced that this number of sprayings is sufficient, if properly done at the following times, to insure a clean crop: Once before the blossoms have fallen, next ten days later, and two weeks after for the first brood. Two sprayings two weeks apart are sufficient for the second brood, the time to be determined by brooding cages. Should there be a third or partial brood give one spraying and determine the time in the same manner. I do not mean to say that a less number of sprayings would not be sufficient, but I do mean to say that spraying as I have outlined it will give, and has given, us practically clean apples, with less than two per cent of wormy ones.

"Thinning is not easy to explain, and a great deal more difficult to do intelligently. To get price you must have size, and to get size you must thin. Do it, and do it with a firm nerve and an iron will. A good general rule is that no two apples should touch; in fact, no two should be closer than from four to six inches apart.

## TREAT APPLES AS EGGS

"In gathering and handling our apples we treat them as we would eggs, not because they will break, but because a bruised apple is about as valueless as a broken egg. In packing we do not follow the time-honored farmer custom of stove piping, but the golden rule. We aim to pack just such fruit as we would be satisfied to buy if we were purchasers and paid a fancy price. Our packing is not done by the farmer himself, but by expert packers in the employ of the union, and under the supervision of an inspector. Here is where we complete our grand success by culling out all apples that may either accidentally or purposely have been placed on the packing table. Each apple is wrapped, layer paper placed between the layers of apples, and then the box is lined. We put up a good, honest pack of fancy fruit, and so confident is our belief in our system that, when occasion demanded it, our board of directors issued a sworn statement and backed up the affidavit as to the pack by offering the pack in evidence; and I am proud to say that

the New York papers commented editorially and voluntarily by saying, 'The fancy prices being paid for Hood River apples is conclusive evidence that the pack and quality is all that could be desired.'

## SOME OF THE DETAILS

"We pay particular attention to the following details: We pick carefully, pack in good light, use suitable packing tables, clean boxes, sort carefully, wipe well, stencil the boxes neatly with variety, tier, the grower's, packer's and inspector's number, enabling us to locate any defect; load on the sides, and haul in spring wagons with covers to keep off dust or rain."

## Red Rust on Raspberries

W. C. H., Winona, Miss.—If the tips of your red raspberries turn a brilliant scarlet and throw off a large amount of dust of this kind, I feel certain that they are infested with what is known as red rust. This disease occasionally causes great loss. The best treatment for it is to dig and destroy all the infected plants. A rigid adherence to this plan will generally result in preventing the spread of the disease.

## Raising Raspberries—Apple Leaves Killed

D. N. M., Salem, W. Va.—The care in handling raspberries will vary more or less in different sections and according to the kind of raspberries grown. There are really two distinct classes of raspberries, one of which grows by the tips rooting in the autumn, and the other by suckers from the roots. Sets of either kind may be obtained from nurserymen, or may be dug up from about the plants in the spring. They should then be planted about four feet apart in rows seven feet apart, putting two sets in a place. All the growth should be allowed to grow the first year. The second year if a large number of sprouts come up only four or five should



YOUNG APPLE TREES IN BLOOM

be allowed to each hill. The fruit is borne on canes of the preceding year, so that each year we must grow a crop of canes to grow fruit the following year, as well as the canes which are to bear fruit in the current year. After the fruit is picked the fruiting canes should be cut out close to the ground, which will give more room for new canes to develop. Raspberries need to be cultivated through the summer as carefully as a crop of corn. After they are established it is a good plan to mulch them a little with hay, straw or similar material, as soon as the fruit commences to ripen, so as to protect the ground about the roots during the time they are bearing fruit, but cultivate in the spring until fruit ripens. As soon, however, as the fruit is off cultivating should be commenced again and the ground kept covered with a dust blanket.

I do not know what you refer to as injuring the leaves of your apple trees. It may be a leaf roller which causes the leaves to curl up, or it may be some injury from a fungous growth. I presume you cannot find any specimens of the injury now, but if you can I would be glad to get them, and could then answer you more definitely.

## Fruit Growing

By S. B. GREEN

## Black Locust

J. C. R., Russell, Kan.—When the black locust becomes infested with borers in any vicinity it is almost impossible to save any of the trees from its ravages. The best treatment is probably whitewashing the trunks, but it is of very little value in protecting the trees after the borer is so thoroughly established as it seems to be in your vicinity. I would suggest that you plant out some tree that is not liable to this injury, with the expectation that your black locust trees are doomed, and you will need something to take their place before many years. The honey locust is a better tree in many ways.

## Wood Ashes for Fruit

F. M. S., Fresno, Cal.—Unleached hardwood ashes is a good fertilizer for fruits, as it contains a considerable amount of potash and phosphoric acid, but unleached ashes from coniferous woods, as pine, spruce, fir and hemlock, is of very little value, as it contains little or no potash or phosphoric acid. It might possibly be worth using if it could be obtained for little or nothing. Leached hardwood ashes generally contain a small amount of phosphoric acid, but all the potash is gone. It is of little value, but it may be worth while to put it on an orchard, provided it can be obtained near by without much expense.

## Trees Injured by Mice

J. C. M., Carlisle, Minn.—Field mice have not been especially abundant or troublesome during the past few years. I do not know to what extent they have damaged orchards and nurseries in this vicinity, but sometimes they have done so very considerably. As preventive measures we have practically been able to overcome entirely the loss from this source

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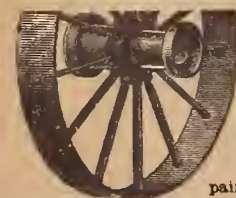
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## Live Stock and Dairy

### Mangel-Wurzel Beets an Economical Stock Food

CONSIDERING the labor required in growing and harvesting, and the small space in storing, together with their proven food value, I would class beets with the economical stock foods. Silos and alfalfa are not within reach of all of us, but beets are, and therefore should be thought of as a necessity in making up the menu for our farm animals. Aside from their real food value, they are indispensable in connection with the strong grain and dry feed as an aid in keeping the system in proper condition.

Do we fully comprehend the bad effects of feeding strong grain foods to our stock? We all know the effects of the proverbial mince pie in bringing visions of our grandparents. This serves to show that when such strong foods are taken into our stomachs the effect is bad, and our systems rebel with bad dreams as a warning against a repetition.

It takes no very fertile imagination to see that in feeding "mince pies" to our stock the effect is the same, possibly the dreams, too. When such foods go into the stomach and then into the intestines in a wad, it is clear that the full nutritive value of the food cannot be secured, and may result in actual harm to the animal in impaired digestion. This can be entirely overcome by diluting the strong foods with succulents.

To illustrate this point, when harvesting my beets last season a prominent dairyman wanted to buy one hundred bushels. Upon inquiry he stated that he wished to test and make a record for a Holstein cow, and with beets as a diluting food he could feed much heavier without fear of injuring the cow. To use his words, "There is nothing like beets, when you want to crowd a cow to her limit."

That was food for thought, as well as for the cow, and struck the beet proposition fair and hard.

As another instance, a neighbor lady grew beets for her poultry. She had phenomenal success in producing winter eggs by feeding corn and beets. There is a strong feeling against feeding corn to poultry, but this lady diluted her "mince pies" with beets and her hens filled the baskets and nary a dream.

Another farmer came to me in a great hurry for beets for his sick cow—sick from clogged bowels. In fact, she was sick for beets. Another lost a valuable cow from the same cause. No doubt a single beet at a feed would have saved her.

I do not claim that beets take the place of grain, but that they aid in digesting the grain, and therefore keep the system in the best possible condition.

I feed my cows ten quarts of beets with the usual grain ration, with a pinch of salt each feed. They eat about two thirds of the amount of hay they otherwise would.

Last season I fed eight bushels of beets with ten bushels of ear corn in fattening a young heifer for beef. Though warned that she would grow and not fatten, the result was a complete surprise to the butcher as well as myself.

Though I have never fed beets to hogs, I feel certain that if fed with corn in fattening, or as an addition to the food of a growing hog, the most flattering results would be secured.

As to the best varieties, I have had best results with Yellow Globe and Intermediate Yellow. They yield well, come out of the ground clean, without fibrous roots, and keep well by simply throwing in a pile in a corner of the cellar. The sugar beets are, no doubt, superior, but are not so heavy yielders; and if season is wet when harvesting, they come out of the ground with lots of soil adhering, as the roots are quite fibrous.

In the growing of beets I am an enthusiastic supporter of the principles of Mr. Greiner's "New Onion Culture." I transplant from seed bed and never sow seed where the beets are to grow.

Sow seed early in May, in convenient-sized beds, in drills six inches apart. From June 20th to July 1st transplant in rows thirty inches apart and ten inches in the row.

There is nothing that will respond quicker to good soil and treatment than beets. Two loads of manure will produce twice what one load will. Their size depends upon soil conditions. Remember this in selecting and preparing a place for beets.

Plow the ground as early as possible. Harrow lightly once a week, just to kill weeds. By June 20th the beets will be ready to transplant, and should be the size

of lead pencils, and your beet ground will be free from weeds and the weed battle for the summer almost won.

This transplanting process is a bugbear to some. Don't be discouraged before you begin, but think once of the weeding necessary if seed had been sown in the open ground. Plant by a line, with a ten-cent boy to distribute the beets that have been previously taken up; half the tops cut off, in handful lots, and roots dipped in water.

Drop on your knees (once in your life), and with a stiff trowel or dibble in one hand make opening into which place beet with the other. Then with the fingers of both hands placed close to the plant (not dropping the trowel) press firmly, at the same time by means of your arms boost yourself along one notch, ready for the next plant. Quickly done? Why, yes! A one-hundred-and-fifty-foot row in ten minutes; in one fourth the time required to weed it. Not a plant will fail, therefore no open spaces. No thinning out, therefore no waste of seed. No weeding and no swearing. You will see the word "Economy" written everywhere.

Don't fail to press soil around plant; firm, firm. That is the key to success.

In a week run a hand cultivator close to the rows, or disturb the soil with light hand rake. In a week, and often thereafter, up to October 1st, use one-horse cultivator, going once between the rows. Breaking off some of the lower leaves, as the season advances, is no injury.

You will take more pleasure in watching your beets grow than your wife does in having a new hat. Your neighbors will note your success and attempt to beat you the next season.

As to the yield per acre, I grew two hundred and forty bushels in seventeen rows one hundred and fifty feet long—less than thirty rods. This was on ordinary ground without special preparation.

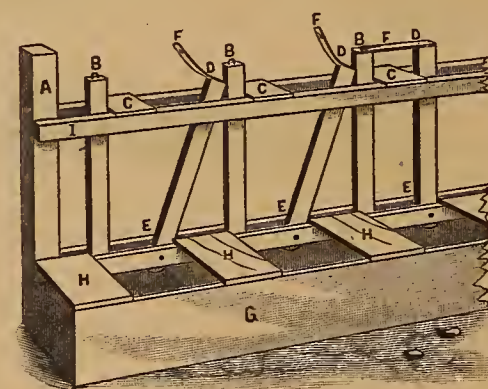
It is proper to here state that in feeding beets a root cutter is not necessary. I cut a beet weighing four pounds into half a dozen pieces. If not cut up, stock will soon learn to eat them without danger of choking.

In conclusion I want to urge every reader to grow some beets the coming season. The cow, the horse, the hogs and the poultry will thank you for them.

S. C. TEMPLIN.

### Stanchions for Feeding Calves

I have had some experience in feeding calves, and I find that they do not do as well when they are allowed to suck each others ears, as they do when fastened apart until they forget about sucking. As it is a difficult task to capture them and tie with a rope I devised the stanchion here illustrated. The feed pails are set in the box marked G, which should be just large enough to hold the pail firmly so the calf cannot upset it by bunting, as all calves do. The calf will learn in a very



few feedings to put its head through the stanchion to drink, then it is fastened, and sucking ears is impossible. After they are through feeding leave them in the stanchions for ten or fifteen minutes, when they will have forgotten to suck ears.

The stanchions can be built in a panel of the fence of the calf lot. Then there is no need of climbing the fence to feed the calves. A is a fence post; I is a two by four; C is an inch board five inches long; B is a two by four three feet long; D, E are the same, fastened by a bolt at the bottom to swing on; F is a leather strap fast to D and hooked to B to hold the stanchion in place when closed.

M. D. CROWELL.

### The Clipped Horse

That there is a great advantage in clipping the thickly coated horse is made more evident to us each season, and the wide-awake horsemen who have the best interests of their animals in mind will not argue for one minute against this method,

which is rapidly gaining preference among our most practical horsemen.

We already see many roadsters gliding along our highways divested of their thick coat of hair, and as the balmy days of spring fast approach the majority of this class of animals are found comfortably clipped.

With this attention given to the driving horse the owner not only gains comfort for his animal, but as well gets rid of the disagreeable flying of loosened hair which no amount of grooming can entirely remove during the shedding period, as well as affording the animal better traveling facilities which cannot be hoped for in the horse that is covered with a sluggish, deadened coat of hair which it really has no use for excepting to strew about upon the cushions and clothing of the driver.

It is true a horse that is treated in this manner should be very properly blanketed when returned from a drive and placed in its stall; however, if not blanketed we believe that it is in much better condition to withstand rough treatment and neglect than the one that is brought to the stable with a heavy coating of hair filled with perspiration that will remain in the coating for a number of hours despite the best of grooming.

The clipped horse, after being returned from a spirited jaunt, requires a few minutes of brushing and rubbing down, after which its skin is perfectly dry and in a proper condition to receive the stable blanket. It is not so with the horse that is suffered to carry its coating of hair and shed it out through nature's avenues. The latter animal must needs be very uncomfortable after a drive, for no amount of grooming will really put it into proper condition to be blanketed in the stall.

We speak more particularly of the road class, as it is this class of horses that are most usually clipped. The farm horse cannot be treated in this manner so well, from the fact that their customary uses do not usually comply so well to this treatment as do the roadsters, although we have noted very many instances where the farm or draft horse has been clipped to a very good advantage. The usual custom of this class of horses is to be driven up and left stand at intervals for loading vehicles about the farm or yards, and as it is not practicable at all times to carry blankets to cover them while unoccupied the custom of clipping this class of animals is not nearly so general. Hence we find but a small per cent of them clipped, and these only late in the spring, when the temperature has become very moderate.

One seldom passes into a community now without finding several clipping outfits, and we find that a great many of these outfits are owned and operated by farmers' sons, who do the work in spare hours, thus adding materially to their income.

One who owns a driving horse and has had it once clipped seldom refrains from this practice, as it not only adds greatly to the facility of brushing and grooming, but adds as well to the comfort of the animal, and doubly so to that of the persons who ride behind the animal.

Many horses we have noted are changed greatly in appearance, especially those that are addicted to very heavy growths of hair about the chest and fetlocks. Others are changed materially in color, and we have noted horses of a brown or reddish bay color so changed that the owner would not recognize his own animal if he knew nothing of the transformation. Horses of this color are usually found much lighter in coat after clipping, while the iron grays, roans and blacks are seldom changed in color, and, if any, only for a few days, when the coat again partakes of its original shade.

While the usual custom is to perform this work in the opening of spring weather, yet we have many in our section who practice clipping in the autumn, and we see no harmful results arising from this habit where the animal has had proper care and warm stabling facilities.

It is not at all practical to clip the poorly fed, rawboned animal, as it is a very hard task to remove the hair, and further, we believe the animal needs its coat, for its owner will not give it proper attention when divested of it, hence it must suffer for lack of warmth.

We have, however, noted animals that were well fed divested of their coating that were as sleek as a mole, and very materially improved in color and appearance.

It is our usual custom upon the removal of the hair to give the animal a good bath with soft water and castile soap, followed by a thorough rubbing until dry. This not only stimulates the new growth of hair by opening up the pores of the skin, but adds greatly to the appearance of the animal in its future growth of hair.

We ardently advocate clipping of horses, and only await the time when it will come into more general use upon the farm as well as in our more astute city stables, and I venture to predict that it is not far distant.

GEO. W. BROWN.



## Live Stock and Dairy

### Silo Questions

F. C. A., Oregon, Mo., asks as follows:  
 "1. Would a silo be successful dug round with perpendicular walls, flat bottom and cemented as you would a cistern?"

"2. How large a silo would I need to furnish silage for from five to six cows?"

"3. How many acres of corn would I need to fill it?"

"4. Would I have to plant some certain variety or just common field corn?"  
 1. A silo may be made successfully in the ground, but all things considered such a silo is not wholly desirable. My first silo, used probably twenty years ago, when silo information was both scant and not at all general, was an abandoned cistern, ten feet in diameter and ten feet deep, the earth sides cemented. The depth was not sufficient to give us first-class silage, although it was good enough to demonstrate to my satisfaction the value of the silo.

The spoilage on top of a silo ten or fifteen feet deep is about as much as on one twenty-five or thirty feet deep; so from this source the loss is out of proportion to amount saved. A silo twenty feet in the ground would be quite a deep silo, while if built twenty feet above the ground would scarcely be as high as desirable.

An underground silo is nice for filling but not so nice for feeding from, although by using a rope and pulleys, with a horse to do the pulling, hoisting the quantity for one feeding in a large box is not a very difficult matter; but in a silo of small diameter and considerable depth there is an element of danger from the accumulation of carbonic acid gas that is formed by the heating of the silage, and which expels the air from the silage, thereby preserving the silage. This gas being heavier than the atmosphere, remains in the deep silo, and there are cases on record of persons having been asphyxiated by it as they frequently are in contaminated wells.

2. If only five or six cows are to be fed silage it would not be advisable to have

### Care of the Dairy Cow

Can it be truthfully said that the dairy cow receives at the hands of her owner or attendant that care which she deserves, and which will allow her to give the best returns? Though it is rather late to speak of it now, still we will take the fall season—when farmers are busy preparing for winter—as a time when dairy cows are apt to be neglected. Frequently they are left to pick a scanty living from bare pastures and the fence corners of grain fields, exposed to all the inclemencies of the autumn weather. The highly organized dairy cow is very sensitive to sudden and extreme changes in the weather, and nothing could be more detrimental to economical milk production. The flow of milk is often so materially lessened that it cannot be brought back to the normal standard during the winter. Exposure to storms and lying on the cold, damp ground at night not only lead to a decreased flow of milk, but they are very apt to cause udder troubles, rheumatism and other diseases, and in some cases even death.

It must be remembered that one night or even a few hours of cold rain causes an enormous shrinkage of milk. Food, comfort and contentment are the prime factors in successful dairying, and it is not too much to say that comfort is the prime factor. To feed well but to disregard the bodily comfort of the cow is to court and insure disappointment. A cow will fail to elaborate a full quantity of milk if she is wet or shivering from cold.

Autumn is really a more critical period for a cow fresh in milk than winter. Cold rains and raw winds are fruitful causes of decreasing milk. The first makes inactive the muscular system, while the latter so disturbs the nervous system that it fails to perform its work. Cows should therefore not be exposed to fall rains, left out during cold nights, or confined in muddy and wet yards at any time.

The proof of this was clearly demon-



DELAINE RAMS

more than six feet of diameter, as all of the surface of the silage must be gone over daily.

3. A silo six feet in diameter and twenty feet deep would hold about twenty tons of finely-cut corn, which should be grown on an acre and a half of land.

4. Any good, large-growing kind of corn will make silage. I prefer two small ears to one large one. A variety should be used producing plenty of long, broad blades. Cut when grains are denting.

My gratuitous advice, supplementing the above, would be to have the silo not less than twenty-four feet in depth, and thirty feet if possible. If conveniently built on a hillside, there are no objections to going into the ground, but I would not advise more than four feet below the level of feeding floor. A silo twelve by thirty feet would hold about eighty tons, and twelve to fifteen mature animals could use it rapidly enough to keep silage from spoiling. If the desire is not to increase number of cows good silage can be profitably fed to horses and mules, and very profitably to young cattle and fattening steers, sheep and goats. I have two brood mares now being fed it twice a day, eight to ten pounds at a feed, with two quarts of wheat bran and an allowance of mixed hay. They are in fine condition. W. F. McSPARRAN.

strated in an unintentional experiment carried out some time since. Some changes were being made in the cow barn, which made it inconvenient to stable the cows for a few days, and just then a cold, rainy spell set in, to which the cows were exposed. There was not only a very marked shrinkage in milk and butter fat at once, but they failed to recover during the winter, though the feed was liberal and the care the best that could be given. It was known when the shrinkage took place and why, but the attempt to recover it failed. The next year such an experience was guarded against, and the herd gave a daily average of 28.4 pounds of milk and 1.2 pounds of butter fat, as against 16.11 pounds of milk and .8 pounds of butter fat given the year before.

It may be asked what the cows did with their food, since they were fed liberally during the winter. They made beef or fat with it, for each gained an average of nearly half a pound a day, a gain that did neither the cows or the owner any good. During the two winters the herd was composed of the same cows, fed the same rations and received in every way the same careful attention, and yet because of that mishap the herd failed by just fifty per cent of doing its normal or possible work. W. R. GILBERT.

Dairy Talks by the EMPIRE Dairy Maid—No. 7.

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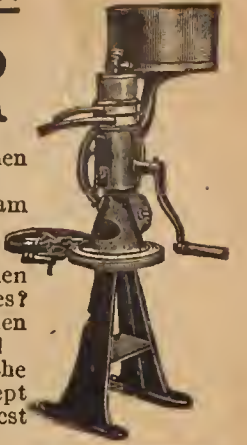
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## Poultry Raising

By P. H. JACOBS

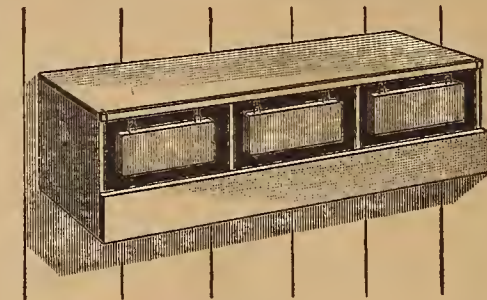
### Eggs of Pure Breeds

MUCH confusion and dissatisfaction sometimes result by misunderstandings between breeders and their customers during the selling and buying of eggs of pure-bred fowls at this season. The earlier the orders are sent the better, as the breeder must depend upon the caprices of his hens. He cannot compel them to lay, hence the prompt filling of an order may be beyond his control. As a rule, the breeder fills orders in rotation, the "first come first served." The breeder is, however, responsible for the proper packing of the eggs, and if they are broken by the agents of the express company he should at once refill the order and look to the express company for damages. The customer buys on the supposition that the breeder knows how to pack and ship, otherwise he should not offer to send eggs to distances, and the customer consequently places confidence in the breeder to insure safe delivery. A "fair hatch" is claimed to be seven chicks from thirteen eggs, but if the customer secures a larger number of chicks he is fortunate. Some allowance should be made by both parties for the many difficulties to be encountered. It is somewhat late for ordering eggs, but not too late; therefore, if you contemplate purchasing fowls or eggs send a card to the breeder requesting him to "book" your name. No money is required until the order, for the eggs is sent. By booking your name he will be ready to send them whenever required, as he then knows that the order is expected and will prepare for it.

### Nests for Egg Eaters

Here is a description of the appliance which stopped my hens from eating eggs. Where nests are in a light place it will pay to use it, whether the hens have the egg-eating habit or not.

Hinge light doors to the edge of a lath by means of small staples, such as are used with poultry netting. Tack the lath to the front of the row of nest boxes, with heads of nails projecting a little, so that the doors may be easily removed for cleaning the



nests; or, better yet, make staples of sufficient width to take the end of the lath, and hang the ends in these so that the lath may be slipped in or out at pleasure. Leave space of two and one fourth to two and one half inches below the doors.

The hens will like the nests. Two hens will rarely occupy a nest at one time. With one of these doors resting upon her neck, the most incorrigible egg eater will seek a different diet.

\*

### A Daily Inventory

Every farmer should endeavor to know the causes of loss among his fowls and chicks. Hundreds of chicks are hatched on farms and lost in various ways, yet the losses cannot be accounted for. Count the chickens often, and if one is missing aim to know the cause. It does not pay to hatch several hundred chicks and lose the larger portion. It frequently happens that farmers do not count their chicks until they are half grown, not knowing how many the cats, dogs, rats, owls, hawks and other enemies have taken, it then being too late to make amends for neglect in protecting the chicks.

### A Business Transaction

The actual profit derived from a flock of fowls cannot easily be estimated, unless one places a value on all foods consumed on the farm by the fowls, as well as on the consumption of poultry products on the part of the poultryman and his family. Careful accounts with a flock of hens will show that they consume many foods that cost the farmer nothing, such as table scraps, grass, wastes at the barnyard, etc.; but everything on the farm has a value, even if but to be plowed under as a fertilizer. Whether the food is purchased or grown it costs something, in some form, and if an estimate can be made of its value, it should be charged against the flock. In favor of the hens they should

be credited with all that which they produce. All eggs used on the farmer's table cost him something, even though laid by his own hens, and he really buys meat and eggs from his hens and sells to them their foods, whether he keeps accounts with them or allows the matter to be overlooked. There is a business transaction between the man and the flock, though perhaps not recognized, but it exists nevertheless, the profit or loss depending upon how much the man can get for the food which he sells to his fowls and the exchange value of the poultry and eggs which he receives as pay and converts into money. Even the droppings have value.

\*

### Choice Poultry

Every market welcomes "choice" poultry, and at all seasons of the year. The demand for good poultry is constantly on the increase, whether for the fancy varieties or for consumption. Beginners in every portion of the country are constantly coming forward to take up the higher-bred birds produced from season to season to experiment with in their way. The demand for chickens and eggs everywhere in our markets, or for family uses, has been enormously enlarged in the past few years.

\*

### Keep a Lookout

It is never out of place to caution against losses. When a chick is found drooping, look on the skin of the head and neck and you will probably find some huge lice. The same with young turkeys. One half of the young chicks and turkeys die from the attacks of lice. It takes but little time to examine for the destroyers. Look for the large lice—not the little mites.

\*

### Next Year's Producers

The layers for 1907 should be hatched this spring. When a large number of chicks have been secured the rule should be to keep the earliest pullets for next year's layers and kill off all the young cockerels for market, so as to give the pullets more room. They should be kept in good growing condition, in order to reach maturity before November. Late pullets seldom begin to lay until spring, hence all chicks hatched after April 15th, if of the large breeds, should be carefully observed, and the best selected. Some breeds, such as Leghorns, may produce fall layers from chicks hatched as late as June 1st, but the month of May is as late as should be granted the medium breeds. It is better, however, not to have pullets hatched late, if it can be avoided.

\*

### The Layers

Feed your hens some kind of animal food if they are laying, and avoid too much grain. The pullets hatched early last year, and which did not lay in the winter, will probably lay during the whole summer, if carefully managed. The winter layers are preferred by some, but the hens that lay the most eggs in a year are those that begin very early in the spring and lay well on until fall. There is some lost time when the hens are molting, but the advantages are with the summer layers. Eggs may not be as high in summer as in winter, but the hens will make up any deficiency in price by increasing the product.

\*

### Beginners with Pure Breeds

There is nothing to prevent those who have pure breeds from selling eggs this season, but only a single variety should be used by beginners the first year, as they can best learn all the various points and characteristics when but one breed is kept. The knowledge gained will be valuable; other breeds can then be added with advantage. Exceptions should be made when the non-sitters are used, for it may then be necessary to have some other breed should it be desired to hatch chicks.

\*

### Regularity in Management

Fowls, like human beings, are susceptible to influences. They soon learn the hours for feeding, and will come up to roost at nearly the same time every evening. If fed regularly, they will remain on the grass plot and forage until a certain hour, thus securing a larger number of insects and more food of various kinds. There should also be regularity in getting them out of the poultry house in the morning. Nothing is more easily made the subject of habit than the hen, and she soon becomes regular in her habits under good management.

### Advantages of the Games

In reply to several subscribers who recently made inquiries regarding a previous article, it may be stated that there are many varieties of games. Those usually exhibited at the shows, such as Black-breasted Reds, with their long legs, Indian Games, and Pyles, are not of the pugilistic kind that are used in the pit, those of the cock-fighting class having various names, not being bred to any particular standard. If they will "stand steel" they are considered all that the fancier of the pit desires. But while the pit games are pugilistic in nature, they are nevertheless warm favorites with many who would not even witness a combat in the pit. They are hard feathered; that is, their feathers are close to their bodies, and they are excellent foragers. When young they are hardy, though more so when over the age of three months, but their close feathering seems to make them more susceptible to the attacks of large body lice than the chicks of other breeds, being similar to the turkey in that respect, but those who admire the Pit Games do not admit them as being inferior in any respect, so far as hardness is concerned. The hens are considered the best of all the breeds as sitters and mothers, and they will battle with hawks, cats or other depredators in defense of their chicks.

The carcasses contain a small proportion of offal, compared with those of some birds, and they cannot be surpassed in quality of flesh. The males usually settle the matter of mastery among themselves, the victor keeping the others in subjection, thus preserving peace in the flock. The game fowl is nearly always much heavier in weight than is apparent to one not familiar with their peculiarities. It is claimed that they are not above the average as layers, but some cross Leghorns and Pit Games, the pullets of the cross being retained, the Indian Game being a succeeding cross the next year. The largest of the games are the Malay Game and Indian Game, but the Malays are now rare. Among the Pit Games are many local or selected names of varieties, such as Derby Games, Strychnines, Cyclones, Shawl-necks, Waterloos, etc.

\*

### A Venture in Poultry Keeping

A good many years ago there were two brothers, young men and unmarried, who jointly bought a little farm away back in the hills in central New York. They had but little money to pay down. Together they worked the farm in summer. In winter one ran the farm and the other taught the district school, assisting with the chores mornings and evenings. They went on this way for several years, making a bare living and just keeping up the interest on the mortgage on the farm.

As they worked together they used to discuss various methods of making the farm more profitable. Their attention was finally drawn to the possibilities of profit in poultry, and after talking it over they concluded—to go into the poultry business? Oh, no; to keep strict account of the little flock of fowls they had on the farm, and see for themselves what they could make from a small number.

The flock consisted of less than a score of ordinary fowls. The profit on this flock was so satisfactory that they increased the flock—about doubled it. That was still a small flock, not at all up in numbers to the ideas of the average beginner of the number with which it is worth while to make a start. The third year they increased in about the same proportion, the flock being still below the hundred mark. After that the same rate of increase made large additions to the flock every year. They began to get into thoroughbred stock; went to local shows and won prizes; went to New York and won more prizes, and began to sell eggs for hatching and exhibition and breeding stock at high prices. Money began to be easier with them. They left the small farm and bought a larger and better one more conveniently located.

Their "fancy" poultry business was but an accessory of their work in practical lines. As soon as they began to have eggs to sell in quantities, one of them went to New York and looked up special customers who would pay extra prices for a good article. Finding the demand too great to be filled by their own supply, they began to collect eggs from their neighbors, and gradually extended the circle of collections until, when I visited the farm last, they were handling about \$25,000 worth of eggs a year. The farm is one of the finest in that section. One of the brothers retired from the farm a few years ago, and the one who remained and his son continue the farm along the same lines. They are also interested in many outside enterprises. The head of the firm said to me a few years ago: "Our poultry gave us our start. We have made more money since from other things than we ever did from poultry; but poultry has always paid us well."—Farm-Poultry.



## A Wise Crank on Farm Fertilizers

"FOLKS up our way say I am a crank on barnyard manure. I am inclined to think they're more than half right."

That is the way one of the best farmers of his neighborhood put it in a bit of talk with me as we met one afternoon. Work was not pressing very hard just then, and it seemed to me a good time to get a few pointers on what is really one of the most important questions that the farmers of the present time have to deal with. I pulled out of the road a bit, so as not to be in the way of any passer-by, crossed my legs comfortably and settled down to listen to what this wise crank might have to say.

"It is about time more of us got to be more cranky on this subject than we are," he went on, seeing that I was in a mood to listen. "The fact is, we are digging our farms right up by the roots and selling them by the basketful. You know that every bushel of potatoes, corn, wheat, oats or anything else we take out of the ground carries with it a certain amount of soil fertility."

"Can't be otherwise."

"No. And what are we doing to get that fertility back? Hundreds of farmers never stop to ask that question. They think only of the money they get for the stuff. The money is the thing. Farm'll last as long as they do, they say, who cares for anything after that? Every man must look out for himself! Wrong; wrong from every standpoint you can think of, and extremely selfish."

"I take something of that to myself. Sorry, too."

"Well, you ought to be sorry!"

I thought there was a little more of sternness in the tone than the case called for. I did not quite like it; but then, this was a crank I was talking to.

"If men do anything they just set the plow down a little deeper and bring up some of the soil that has never yet seen the light of day. 'This is a good, deep soil,' they say. 'I'll bring that up and get the good out of it while I live. I don't care after that.' But there will come an end to that kind of farming? Then what?"

I wondered, but did not say so.

"Now, this is what I think about it. You and I ought to have interest in the good of our farms and think enough of the men and women that come after us to put back into the earth somewhere near what we take away. Anything wrong about that?"

I knew this was only the fair thing. Did not the Golden Rule reach even to the keeping up of soil fertility on our farms? That was only a reasonable proposition.

"That's logic, anyway."

"Well, now we have our start. How, then, shall we do that? I do it in two ways. First, by making all the barnyard fertility I possibly can. There is such a thing as being too economical in the purchase and use of grain feeds. You take manure that has a good grain element combined with it and it will be much richer than that which is made of clear hay. Some of the goodness of the grain will come through undigested; and even if this were not so, there are parts in the grain which must necessarily not be used by the animal that eats it, and this will go out with the manure to make the farm better."

Sensible, and I cross my legs and listen again.

"Then take clover and other coarse feeds like that. How full they are of rich ingredients! Ever think that some eighty or ninety per cent of the fertility of those plants goes back to the farm if fed to the cattle? Surprising, isn't it? Why, then, do we not bend every effort toward growing more clover? Every acre of clover the farmer raises is a perfect bank of gold, if he only realized it."

"So it would seem."

"And then, where young stock and hogs are kept to eat up the milk after it has been skimmed for butter and cheese, even a larger percentage goes back to the manure pile. Why don't we keep more of that kind of stock? Think how quickly calves will grow into cows and pigs into hogs! You have not only the pork to sell and the cows to turn off, but you get the richest kind of manure to draw back to your meadows. I can't see what so many men are thinking of not to do more in this line. They really rob themselves, and all the time they think they are saving money for their own bank accounts and robbing the folks that come along to-morrow! Foolish. I may be a crank, but I am inclined to think—"

But that sentence never was finished. New trends of thought came rushing in.

"But I was going to tell you about the other way I have of keeping my land in good heart. I wish people knew what stores of mineral wealth they could make available just by plowing under green crops! Something about the process of decaying vegetable matter that just makes the fertility pour out. We have not begun

to find out all there is to learn here. It will come, though. If the cranks only keep on studying on the subject. Wonderful study, too. I wish sometimes I could live a thousand years to see just what this old world would be by that time."

A sigh, then,

"But it's all right to keep right on pegging, just the same as if we were to be here in the millennium. I'm going to do it, too!"

A brighter look now on the gentle crank's face.

"That is not all, either. I don't know but the time will come when there will be a world of value in the mineral deposits that are being uncovered in this country—for the farmers, I mean. Some farms are now using these with good results. On others they do not seem to yield as good results. I think it wise to go a little slow here. Live and learn. Stick to barnyard fertility. That's my motto. Get all you can of it; the more the better. Study the other kinds of fertility, but put your dependence on the product of your own stables. Keep all the stock you can. Feed the richest products you can. Sell no hay or other coarse feed. Feed it all out at home. Be a crank, and the time will come when the world will rise up and call you blessed."

So my neighbor crept down from his perch on the fence and went back to his work whistling, while I drove on. He seemed to be a happy kind of a crank, and I really believe he is more than half right. I wonder if he is not really the smartest man among us? EDGAR L. VINCENT.

## Planting Corn

Neither plant the corn too early nor too late. As Samantha Allen says, "be me-jum." Commence the preparation of the soil early enough to get it in good condition, and when the proper time comes start the planter.

If the farmer has time to pulverize the

## In the Field

harrowing of broken stubble ground will generally put it in condition for the planter. If heavy rains beat upon it, the disk should be run ahead of the harrow or the ground may not be sufficiently pulverized for the planter to cover the corn. Rolling land can also be planted earlier than flat land, for there is not so much hindrance from the spring rains, because it dries out quicker.

W. D. NEALE.

## How to Raise Seed Corn

An address on this subject, given at a farmers' institute in Kansas by Rev. J. H. Green, was so heartily indorsed by the intelligent farmers that we cull the following directions, feeling sure that the inexperienced will be greatly benefited in whatever state corn is raised.

"Get the best pure seed corn, selecting the variety you like best, and stick to it. An ideal ear of corn has length, slight taper, cob small, grain deep, filled to the tip and without rasp. Preparation of plot: Plow deep, subsoil if you can and make it rich as possible with well-rotted manure or the best commercial fertilizer. Thoroughly pulverize the soil.

"At planting time mark off in rows four feet apart, plant two rows, leave two, and in two weeks plant the other rows.

"Cultivate deep twice, then shallow, after every rain until the grain is filled. Use single cultivator when the double must stop. Plow ten times if necessary on account of rain. Never stop cultivating on account of dry weather. A drag or small roller would be a grand addition to a one-horse cultivator. A dust blanket will conserve the moisture during a Kansas dry spell.

"Afterthoughts—Never let a round stalk grow. Never let a barren stalk bloom. It will increase barrenness. Cut out and destroy black fungus on stalk, tassel or ear, when the first tassel has done its work of fertilization a rain will push out silk, which will be met by pollen from the second planting, and the ear filled is clear profit. When this is done cut the last



DELAINE EWES

soil until it is like an ash bank, it is well, but too much time is often spent in preparing the soil, and before the planter is started rains set in, causing a delay of several days. This throws the crop late, for the frosts to catch. The ground had better be planted in a rough condition and harrowed down afterward rather than put in too late for the crop to mature before early frosts. Frosted corn is always chaffy and cannot be used for feed with very much profit.

I know a man who lost over a hundred dollars in his corn crop by spending too much time in pulverizing a piece of sod land. He had it in fairly good condition, but determined to make it like a garden before he started the planter. When he had finished dragging and harrowing a rainy spell came, and it was over two weeks before he was able to get into the field again. Of course the early frost caught his crop and damaged it.

Take it one time with another, the early corn always does the best. The crop matures before the dry weather of the late summer, and gets out of the way of the frosts. Stubble land can always be planted earlier than the sod, because it is easier worked down and there is not so much danger from the cutworm. One

planting and use it for fodder and let in the sunshine to mature the grain. Gather before freezing. Save the best ears for next year's planting and so on year by year."

V. C. TURNER.

## A Good Fertilizer

Aside from stable manure, which is probably the best of all manures, there is little other used except commercial fertilizers. But there is within reach of many farmers a good fertilizer which can be had for the hauling. The fertilizer I speak of is none other than the mud or silt deposited in the beds of our rivers and creeks. This sediment is the cream of the surrounding country brought down by the rains and the continual wearing of the earth's surface by the elements.

I have seen crops of onions raised where this sediment was deposited, and they were in every instance about twice as large as those raised on ordinary soil. I have seen many other crops raised on patches of this mud deposit, which made such a good showing that I am satisfied that in it we have one of the very best and at the same time one of the very cheapest fertilizers to be found.

J. V. KLUSMEIER.

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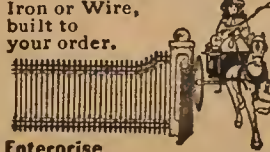
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## Planting Corn

SOME plant corn too early and some too late. My experience has been that corn planted about the tenth of May brought the best crop. Corn, when planted in April, often gets injured by frost or worms.

If the corn is in poor land, it should have some fertilizer containing eleven per cent potash and ten per cent available phosphoric acid. Some prefer it planted with the corn, but I find best results by taking a wheat drill and drilling it into the ground before planting. C. C. HUDKINS.

\*

## Sweet Potatoes

The choice of soil for sweet potatoes depends somewhat on latitude. Near the northern limit of the sweet-potato belt the spot selected should be sheltered from the north winds, have a southern exposure, and if possible the soil should be somewhat sandy. Here, in latitude 36 degrees 45 minutes, where the season is long, we get the best results by putting our sweet potatoes on heavy clay soil.

For growing the slips the potatoes should be put in the hotbed about five weeks before time for putting the slips out in the row. For growing the slips medium-sized, well-shaped potatoes should be chosen. Split them lengthwise and lay in the hotbed, cut surface down, and cover with three or four inches of good, finely pulverized soil.

When the slips reach a length of five or six inches above the surface of the hotbed they will be ready to take off and set in the row. When one crop of slips is removed another soon takes its place and may be removed in turn.

To prepare the ridges I throw out a deep dead furrow with a two-horse plow, and then throw four furrows, two from each side, into the dead furrow, and then finish it up with rake and hoe, making the ridge as mellow as possible.

To set the plants, a hole is made with a dibble, the plant set in and a little water poured in, and then the soil is pressed close around the plant with the fingers. If possible the plants should be set out on a cloudy day or late in the evening.

The culture consists in keeping the ridges clean and mellow until the vines cover the ground. When frost bites the vines they should be cut off at the surface of the ground.

The potatoes should be dug on a bright, clear day and handled carefully to avoid bruises. After digging they should be fully dried out and stored in a room where the temperature is as even as possible and does not fall much below fifty degrees. An upper room that is warm enough for house plants is a very good place. Sweet potatoes that are ripe when dug will keep well till the next season if handled in this way. COURT W. RANSLOW.

\*

## Tomato Culture

I start my early tomatoes in a box of rich soil, set on the warming oven of the kitchen range, and covered with a cloth. This is kept damp all the time until the first seedlings appear. I then remove to sunny window and water as needed. Transplant into a larger box as soon as they begin to crowd. Keep them growing along but not forced.

When weather gets warm enough put out of doors a little or by degrees until they are "stalky" or tough.

In May, or as soon as danger from frosts is over, set the plants out in the garden in rather rich soil about two feet apart, in rows about three feet apart to admit of good cultivation.

As soon as plants begin to grow a bit top-heavy fasten to stakes; set one for each plant.

These stakes should be four or five feet long and have six-inch pieces of wire stapled to them in four or five places to twist together and fasten up the tomato vines with.

Have stakes set, if possible, before putting out the plants, and fasten up the plants as fast as they grow, pinching out each branch or sucker that starts along the sides of vine. You must leave the top alone.

The pruning not only takes off all suckers which would give little fruit, anyway, but makes all the leaves left on the plant grow much larger and able to shade the fruit.

By this method I get ripe, large tomatoes at least two weeks sooner than by any other method, and it is all nice, large, clean fruit, free from disease. M. LIVINGSTON.

\*

## Raising Onions from Seed

We have been planting the seed of the Red Wethersfield and Prizetaker. Sow the seed in the spring just as soon as the ground can be worked. We make a bed on purpose for the plants, using the best garden soil we can get. I sow the seed in rows three or four inches apart. Sprinkle the seed not too thickly, or the plants will

be spindly. The plants should be ready to set out by the last of May.

Shortly before the plants are set out, the ground should be plowed and well harrowed. Then make rows for the plants, using a garden plow. We make the rows fifteen inches apart and about four inches deep, and put in a mixture of chicken manure and wood ashes.

The plants should be four or five inches high, and if the ground has been kept loose the roots will be quite long, too. Sift them carefully and have a boy go along the row dropping the plants three or four inches apart. Then straighten the plant with the left hand and press the soil firmly around the root with the right hand, using a small wooden paddle for the purpose. Be sure and make the soil firm about the roots.

After they have been set out a few days we go over the ground with the cultivator to loosen the soil and keep the weeds down. We go over the ground quite often with the cultivator and have to hand weed in the rows twice in the season.

About the middle of September, when the tops begin to die, we pull them and let them lie in the rows four or five days, then top them, cutting the top an inch from the bulb.

Last year we had twenty-six bushels from a piece of ground in the garden sixty-two feet long and thirty-nine feet wide, making about twenty-eight rows.

The onions were all large, many of them measuring twelve inches in circumference. Our onions took first prize at the Mercer Fair. I do not think that we could have raised that many bushels of potatoes or anything else on the same ground. E. SOMERVILLE.

\*

## Alfalfa

I will give my experience in sowing alfalfa thick for sheep feed. In the spring of 1904, having about four acres of black hillside, southwest exposure, that did not have over one third of a stand of wheat, I concluded to sow it in alfalfa, principally for sheep feed. As all the alfalfa I had ever seen was rough and coarse, I wished to improve on it.

About May 1st I had the man disk the field with a sixteen-inch disk, lapping fully one half at every through, setting the disk as deep as possible. Then I followed with a smoothing harrow, also lapping it one half; then with a weighted board drag to firm the soil.

After sowing one hundred and ten pounds of the best seed I could buy on the four acres, I took the smoothing harrow and by putting a two-by-four scantling under each end made an excellent drag for covering the seed. The two or three inches of the teeth that projected merely scratched the soil, covered the seed and left the land in fine condition.

The result was a fine stand, so thick that weeds did not start—a very necessary thing in growing alfalfa.

I clipped it three times the first year, leaving the clippings on the ground as a mulch. Last year we cut it three times and had fully twelve tons of fine, sweet hay. The stock ate every bit of it, and there was no waste. E. L. GATCH.

\*

## Combating the Codling Moth

I have had a great deal of experience in combating the codling moth and leaf-eating insects, and the most effectual remedy I can find is judicious spraying. The mixture I use is four ounces Paris green, four pounds blue vitriol and four pounds of lime to fifty gallons of water.

My spraying apparatus consists of three fifty-gallon barrels laid on the side in the wagon. Then put on sideboards and a platform on top to stand on. It takes one man to pump, one to drive and two to handle the extension rods.

I spray the first time when the petals begin to fall, and every ten to fifteen days afterward until I have sprayed four times.

About the last of May or first of June I put paper bands around the trunks of the trees to trap the codling moth, and thus prevent their depredations later in the season, when too late to spray. I have found that the codling moth lays an egg in the blossom end of the apple, the egg hatches, the worm eats its way into the core, comes out at the side of the apple, spins its thread to the ground and starts for the trunk of the tree to hide under a scale of bark or any other good hiding place, and changes into a chrysalis. It stays there three or four weeks and comes out a moth, to lay more eggs in the apples late in the summer.

By putting the paper bands around the trees the late brood is prevented. The bands I use are made of common building paper three inches wide, and are tacked

around the trees with carpet tacks. I generally put on two bands, one above the other.

Two years ago I took the boxes out of four twenty-four-quart berry crates and tacked a box in the center of some of the trees in my orchard to see how many birds would build their nests in them. I was surprised to find that eighty-nine of the boxes contained a nest, with from two to six young birds in it. The boxes cost me sixty-eight cents, and I am sure that the good the birds did was worth ten times more than I paid for the boxes and my time in putting them up. Just think what a great number of insects it will take to feed eighty-nine nests of young birds and their parents! WM. H. UNDERWOOD.

\*

## An Experiment with Alfalfa

The introduction of alfalfa in the hill country of Indiana is causing great changes in the manner of farming, making it possible to reclaim fields that were practically worthless. It seems to thrive best on the rocky hillsides.

We experience a good deal of trouble getting a good stand where there is much clay in the soil. In fact, it is almost impossible to get a stand on our clay ridges without a liberal use of barnyard manure, not only to add fertility to the soil, but to improve the mechanical condition.

When I bought my farm two years ago there was about eight acres in alfalfa. About two acres had been sown the year before. Nearly half of it was a good stand, and the remainder of the piece was a very poor stand. In fact, there were large spots where it was missing altogether. Some of my neighbors advised me to plow it up and reseed it, but I resolved to make an experiment with it.

After having seed scattered on the bare spots and harvesting the first crop of hay, which was a very small one, I kept it clipped off with the mower, not allowing the hay to ripen, and letting the clippings remain on the ground for a mulch. By the next spring they appeared to be entirely decayed.

Now, as to the result of this treatment. When I drove into the field I was astonished to find the hay as heavy as any I had cut, and the bare spots covered.

Some growers in this locality claim their alfalfa yields at the rate of four tons to the acre for the season, but I don't believe my land has produced more than three tons of cured hay per acre in the last two years since I have been farming it. G. R. HENDERSON.

\*

## Preparing Soil for Crop

To prepare soil for summer crop turn the land deep, making a bed for a larger volume of moisture. If sod or heavy growth of vegetable matter, use a sharp disk harrow before plowing. By going over the field a time or two with the harrow you can cut sod and all growth into fragments, and the turning action of the harrow will mix sod with earth and make a perfect mulch, which the turning plow pushes through evenly and scatters uniformly and will not turn in a layer at the bottom of furrow, where it forms an obstruction between vegetable rootlets and under-surface moisture.

I also recommend the continual use of the disk harrow or some other tool with which you can thoroughly stir every particle of earth to bottom of furrow, going over it, say, five to eight days before planting. The oftener the better. Every time particles of earth are exposed to air and heat forces unite in dissolving elements of plant nourishment, which is made available for the use of the plant.

Moisture is more easily retained where ground is perfectly mulched. Plant roots in fine soil can reach out unobstructed and gather sufficient food for the plant's complete development.

I don't think a dry season is usually a poor one, especially for corn, if we only do the right thing, that is, intensely cultivate. E. W. MCNEER.

\*

## Growing Watermelons

Sandy land, with good clay subsoil, that has been lying out two or three years, is good for melons. A pea sod is good, as vegetable matter is very important to successful melon growing. The land should be well broken and the weeds or stubble turned under at least a month before planting.

Check off in rows ten feet apart with an eight-inch shovel plow. Open the furrow the way you propose to cultivate (the lay of the land should determine this). With a good two-horse turn plow, plow right and left. This will give a deep furrow. At each check put a peck of well-

rotted stable manure, also drill in the furrow two hundred pounds of guano an acre. Throw two furrows on that with a one-horse turn plow, which will make a smooth, flat bed.

The time to plant for early melons is when apple trees are out in full bloom. To plant, open the bed with a three-inch scooter plow, drop ten seeds at a check, and cover with a board. The plants should be up in ten or fifteen days. If not, replant the missing checks. When plants have four leaves, thin out to one plant in a check.

Then a light hoeing should be given. Run around them with a sweep every week or two, using a larger sweep each time. Give another hoeing about fifteen days after the first one.

Do not move the vines about. As the vines grow out plow further from them, so as not to touch or move them. T. J. STEED.

\*

## Profit in Peanuts

The price of peanuts to the farmer has not been less than sixty cents a bushel in the past ten years. The opening price in October, 1905, was ninety cents a bushel.

Peanuts are planted from the first of April to the tenth of May. The nuts are placed three in a hill, the hills being eighteen inches apart in rows about two feet apart.

After being planted, they require very little cultivation until the vine gets well started. The grass and weeds must be kept out, and they must be cultivated by shallow plowing. The crop matures in the early part of October and is gathered during the month of October, usually during the latter part.

The nuts and vines are dug up and piled in small stacks, so that the dirt on the nuts may dry. If the weather be good, in a few days the dirt will shake off the nuts. Then the nuts are placed in sacks, holding about five bushels each, and are stored until the peanut buyer comes after them.

It requires about four and one half bushels of nuts in the shell to plant an acre of ground. The seed nuts cost about one dollar and forty cents a bushel.

The average production in the Virginia district is about eighty bushels to the acre, and in Tennessee about sixty. The soil of western Kentucky is superior to the soil in the Tennessee district, and is equally as good, if not better, than the old and almost exhausted soil of North Carolina and Virginia. J. HERBERT SEATON.

\*

## A Clover Question

The farmers of the Central States are face to face with the question of maintenance of fertility. Surface soil is being exhausted without crop rotation. Commercial fertilizers are advancing in price, due to scarcity of raw material. Bacterial culture to aid the clover crop has not produced the golden harvest expected, and it is an established fact that clover is the farmer's salvation.

The next question is how clover may be grown in an acid soil. Theoretically, liming would correct acidity, as lime is an alkali and will neutralize an acid. There seems to be some objection, however. The humus acids of decaying vegetable and animal matter are found mixed with rich ammonia salts which are essential elements of a productive soil. What effect will lime have on these salts? In the laboratory lime is used to liberate ammonia from its compounds, and we would expect the same results in our soil. If such is the case, the first crop or crops would receive the benefits, and future harvests would show the results of prodigality. This view of the question is well supported by tradition, many old farmers being averse to using lime on their farms, although not understanding the chemistry which would back up their position.

The amount of nitrogen lost could be partially restored by turning under the clover crop, but it is doubtful whether such farming could be called scientific and economic. Other leguminous plants, such as cowpeas, have been tried, but none has produced the results that have been obtained from clover. Therefore those who so far have been unsuccessful in clover production are anxious that this problem may be quickly solved. R. D. B.

\*

## Listing Corn

When ground is not plowed in the fall lay off your rows and put the corn in. After the corn comes up and is about one week old, run around it with a long scooter plow, plowing deep. This lets the roots go down. Then plow it with a small plow, once every ten or twelve days, keeping the middles in little furrows and ridges.

After the corn is about two feet high, do not plow with long shovels, as they break off the roots. Cultivate the rest of the season very shallow. H. C. BRAND.



## "Atmosphere"

CRITICS applaud and critics ridicule the value of "atmosphere." "It's the atmosphere of his environment that determines a man's actions," says one. "It's the stuff of which a man is made," declares the other. "Put a man of the highest integrity in office and he will soon become a grafter with easy conscience," declare the first. "Put a man of sterling integrity in office and he will unflinchingly protect the people's interests," say the others. There is an element of truth in each.

The possession of strong moral fiber is acquired in various ways, by inheritance and early training, by experience which teaches that honesty is the best policy, by a nice balancing of ethical and moral obligations. Yet the moment a man enters upon an office, hedged about by official courtesy, custom, deference to the established order, and the influence, though unseen, yet felt, that the acts of predecessors in office must be protected by the acts of the incomer, all have a tendency to break down the moral sentiment. No stronger customs and observances hedge a king than are thrown around an official.

Many years have built up a system that taxes the bravest man to defy or ignore. It is only the strong moral support of his constituency and the certainty that it will speedily protect itself, that will enable the average man to serve two or more terms without infringement on ethical and moral obligations. There are strong souls that will and can endure the temptation, but they are not legion. It is too much to ask a man to defy the customs of the place when he knows that every fourth or fifth man out of office would gladly take his place and run the risk of detection in the practices that have grown up.

After all, in a government by the people it is really their own reflection which they see in the acts of their officials. If you want the "atmosphere" of your township, county, or state to be pure, support it by an "atmosphere" so pure, so honest in your own daily business life that a blot at the center would instantly mar the whole. It is the men and women at home who color the "atmosphere" of the town house, the courthouse, the capitol. And it is from the local communities that recruits for the courthouse and capitol come. What about the "atmosphere" at home? What about the moral fiber at home?

## Elements of Taxation

The vexatious question of taxation has never been solved to the satisfaction of any. Perhaps it never will be, but the diffusion of intelligence among the masses as to the various forms of collecting revenues for the government will aid in reaching a just division of the burden. Certain it is that the poorer classes who owned tangible property have borne the largest share. Economists point out that a tax hearer whose capital stock is from twenty-five hundred to three thousand dollars, and who uses his capital and time of self and family, earns about six hundred to eight hundred dollars. Out of this is to come living, taxes and the various burdens necessity and civilization impel. And they point out that one man will receive a salary far in advance of this and pay no taxes thereon.

The American theory has been to levy tax on property. Tangible property has borne the larger part, and the smaller the holdings, the larger the tax in proportion to the entire amount owned. Intangible property represented by bonds, mortgages, moneys and credits have, because of the ease in concealment, escaped a large share of the burden of government. There is a tendency in some of the wealthier states to legally exempt such forms of property on the grounds that they draw no tax anyway, and that men are led to perjure themselves to escape tax. They declare that as no tax is paid, therefore such property should find legal exemption. The troubles with this reasoning are that moral and legal obligations are often very different, and the escapement of taxation is a temporary condition, while legal exemption is organic.

Generally speaking there are two broad plans, one providing for a tax on tangible property only, the other on both tangible and intangible. The former tends to throw a constantly increasing burden on land, whether in the form of farms or houses and lots, and on business property, with the heavier tax in proportion to its worth, on the smaller unit. The other provides for a mixed tax, each class of private property bearing its share.

One great objection to a tax on tangible property only is that it puts a penalty on saving. One of the primary virtues is frugality, to the end that a home and subsistence may be secured for times of non-earning. The demands of modern civilization, in a social and educational way, together with the attractive methods of advertising, weakens the desire to save. The

notion of present gratification is greater than the hope of future comfort. One of the strong reasons for life insurance was the absolute necessity of laying aside each year a certain amount of earnings in forms of premiums. In former times a man was respected in proportion as he was frugal and industrious, and provided for his family against the proverbial rainy day. His savings went into land and the various avenues of trade. But as the burden of taxation increased upon land, and decreased on intangible property, the tendency of the thrifty was to get money in an untaxable security, while those with relatively weak tendency to save found the incentive to economize for a home lessened.

To that end has grown up a desire to legally exempt bonds, moneys and credits and other forms of intangible property. Every such exemption places a premium on such investment. It likewise weakens the desire to own a home. "Why should I deny myself and family comforts to buy a home when it must immediately be levied upon for a tax while other property escapes taxation?" asks the laborer. To the wife and children there is no great incentive for saving unless the proceeds go into land, because neither will have any recourse in case the husband desires to use the money in some other way. Thus the incentive to gain a home is relatively weakened.

The artificial value placed upon bonds by their exemption is questionable from an economic standpoint, since it puts a premium on extravagance. Whether bonded indebtedness is justified on sound economic grounds in the ordinary improvements is yet a mooted question. But to exempt one form of productivity that needs no such protection is bad state business. If the bonds were diffused among the people in small units there would be more equity in the proposition, because all the people who were frugal and industrious would have an opportunity to share in the profits. But even then there would be a large injustice, because it would artificially enhance the value of certain forms of property to the detriment of others.

Bonded indebtedness is not usually the result of the vote of tax bearers, but of entirely another element of the community. If bonds escape tax, then tangible property should have artificial protection.

Space does not admit further discussion in this issue, but the various phases of taxation will be taken up in subsequent issues. There is no question of greater direct interest to the grange to-day than that of taxation. New York is considering the advisability of exempting bonds from taxation. So are Pennsylvania and several other states. Indiana, which exempts bonds, has a constantly increasing number who desire to have them restored to the taxable list of subjects.

## The Observatory

The highest satisfaction comes to him whose conscience is at rest.

The home town of State Master Hadley, of New Hampshire, has a population of about three hundred and a library of over three thousand books.

People will go where it is to their interest to go, and where they can find what satisfies them. Does your grange satisfy the normal desires of your community?

Because bonds are not returned for taxation in New York, it is proposed to exempt them from taxation. Will New York taxpayers sanction this? If not, better watch Legislature at Albany.

For many years Ohio State Grange has asked for a two-cent railway fare. The Freiner law brings the result, and travel on steam cars is very greatly increased. Let other states do likewise.

Do you know what advantages in experimental work your experiment station and agricultural college are offering you? If not, inquire. In most states opportunity is given for home work that is valuable and interesting.

Are you sufficiently interested in parcels post to write your senators urging them to work and vote for it? There is no lever so strong as that of public opinion, not even the express companies, the chief opponents, combined. Write to-day, and get your neighbor to write.

## The Grange

BY MRS. MARY E. LEE

Nature conceals her choicest gifts from the idler. She will have none of him. Her diamonds sparkle only for him who delves into the mines of truth. She is awfully just. She rewards not in answer to whim, but to unalterable law; smiles and tenderness for the pure in heart, frowns and blows for the impure.

Nearly all the jealousies in any organization that does things is through one strong soul putting into effect what all say should be done. The praise is the outward reward for the hard task of doing. Your envy is a confession of a low spirit that is unwilling to do or see others do. Go to work. If you will not, then have the grace to let others do.

To be quick and bright is a gift to be used for carrying forward the work of humanity honorably and well. To be good is an attribute of heaven itself. A bright mind without honor and integrity is so contrary to the plan of nature that it hurts all who come in contact with it. The greater the gift the greater the call to service.

A great deal of agitation is going on all over the country relative to convict labor on the highways. The country cannot afford poor roads. The cost of building and maintenance will be enormous, but not so great as the loss from poor roads. The convicts have inflicted an evil on society. Let them recompense with service for humanity.

A farm paper can render no greater service to its readers than to keep its advertising columns clean and free from unmeritorious advertisements. The worth of such a paper is beyond rubies. If every firm whose name appears in the advertising columns of a paper is safe, thousands of dollars annually would be saved to the readers.

The National Grange has always been an able champion of good roads. It is quite right in urging the use of convict labor to construct and maintain them in good order. Convict labor on the public roads, unlike that in penitentiaries, does not compete with free American labor, and is destined to solve the knotty problems of speedy construction and profitable maintenance.

Every day brings new need for specific intelligence upon matters that touch public and private interests. The question of taxation has been a mooted one ever since civilization began, yet few have intelligent notions upon it. It is a matter of financial interest and farmers will give specific attention. The term's work in the educational course will take up political economy. The outline will be issued as soon as possible.

Miss Harriet Mason, editor of the grange and the home departments of the Ohio "Farmer," is a pioneer in juvenile grange work. After her graduation from Oberlin college she taught school in her home place for a number of years. In this school she organized a juvenile grange to do literary work. It was organized and officered as a regular grange. All of these members have grown into helpful men and women, the noblest tribute a devoted teacher could have.

## Have a Hobby

In your business have a hobby or be a specialist. Do not neglect everything else, but let some one thing predominate.

The premium is on the person who can do one thing well. Modern machinery has changed the world's ways. We cannot afford to do without machinery, yet it is expensive. Therefore, decide on what you are going to do; get the needed machinery to do it with; then do all you can with that machinery. Do not get a dozen kinds and only use each a little. That is the rock which has cost many a wreck on this beautiful billowy prairie land where sailing is so easy and wrecks so disheartening. I have seen more than a car load of half-worn machinery, representing thousands of hard-earned dollars, neglected and rusting around a single Kansas farmyard. Do not do that. It does not enhance comforts nor strengthen our attachments to anything except the sheriff. Do not buy of agents unless you want to pay their salaries, hotel bills, and livery hire. These are paid by those who buy of them, and they come high.—From a Grange address by A. Munger.

## The Government of Canada

Gives absolutely FREE to every settler

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Land adjoining this can be purchased from railway and land companies at from \$6 to \$10 per acre.

On this land this year has been produced upwards of twenty-five bushels of wheat to the acre.

It is also the best of grazing land and for mixed farming it has no superior on the continent.

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Canadian Government Agent, 318 House Bldg., Pittsburg, Pa.  
H. M. WILLIAMS, 20 Law Bldg., Toledo, Ohio  
Mention this paper.

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## When the Cows Get Out on Grass

BY ALONZO RICE

I feel to-day like a little child  
With all of its toys laid on the shelf;  
And I can't, it seems, be reconciled,  
And I find no way to please myself!  
I've thumbed all through my picture book,  
And built enough castles to make a town,  
But somehow or other with the second look,  
I kick the entire business down.  
Sweet comfort I find in the coming day,  
When the ducks and geese to the northward pass,  
And the Dominique hens begin to lay,  
And the cows get out on grass!

I don't know whether I ought to beg  
This way or not, but it seems like I could  
Play "Ring Around Rosy" and "Mumble Peg,"  
"Pussy Wants a Corner" and "Dog on Wood."  
And when the blossomed sunbeams sink  
On the western waters down to sleep,  
I want to lounge by the river's brink,  
And hear the bullfrogs shout "Knee deep!"

For it seems then that the smallest bug  
Gets his fiddle close beneath his chin,  
Caressingly gives it a little hug,  
And with "rosined see-saw" pitches in!  
Then quickly come, oh, golden day,  
When the ducks and geese to the northward pass,  
And the Dominique hens begin to lay,  
And the cows get out on grass!

I want to go and get the spade,  
And have somebody dig the bait,  
Where the violets blossom half afraid.  
Then let me go in an easy gait,  
Till I find a tree that's got the right  
Kind of an easy-fitting crook,  
And where I know the fish won't bite,  
But come and sit down on the hook!  
And there I'll dream and fish away,  
When the ducks and geese to the northward pass,  
And the Dominique hens begin to lay,  
And the cows get out on grass!

## America's Greatest Detective

JAMES MCPARLAN, whose keen detective work in Colorado has brought about the confession of Harry Orchard, giving details of more than thirty assassinations and many attempts at murder, with which officers of the Western Federation of Miners are charged, has a national reputation as a detective. He first attracted wide attention through his exposure of the Molly Maguires in Pennsylvania more than thirty years ago. In this task McParlan first became a member of the outlaw organization under the name of McKenna and gained its secrets. Nine of the "Mollies" were hanged as the result of McParlan's disclosures and scores were sent to the penitentiary. McParlan has been manager for the Pinkerton agency in the Western states.

Reviewing the great case, the New York "World" says that in 1893 the Western Federation of Miners was organized in Butte, Mont. For a long time there had been trouble in the Coeur d'Alene district. There were assassinations and dynamitings regularly. Managers and superintendents lived in fear of their lives. The police were powerless. The militia made a lot of noise, but did little to reach the ringleaders.

A cage filled with miners was allowed to drop fourteen hundred feet down the Independence shaft. Fourteen miners were blown to atoms by dynamite at the Independence station, Cripple Creek. And last of them all, on December 30th last, ex-Gov. Frank Steunenberg, of Idaho, was blown to pieces by dynamite as he was about to enter his home in Caldwell, Idaho, to join his wife and children after his day's labor.

The assassins, seemingly safe, had been reckoning without their Mollie Maguire. James McParlan had gone mining again as he had thirty years ago, and at length got within the mysterious portals of the famous "inner circle." He found out who had done every job, and traced twenty-six murders to their principals. And now the chief ringleader, Harry Orchard, has confessed to McParlan, who really "had him with the goods" all the time, and the prisons are yawning, the gallows ready. As Governor Goodling, of Idaho, has announced officially:

"The assassination of former Governor Steunenberg was the third attempt upon his life made by Harry Orchard. Orchard's confession was made to James McParlan. In that confession Orchard implicated all those now under arrest and others. He told the story of twenty-six murders, the results of conspiracies in which all the accused parties were interested. When this story is given to the public I believe it will be the greatest narrative of crime which the world has ever known."

## Around the Fireside

Orchard's confession to McParlan was a full story of his life from the time he was born, in Detroit, up to the day he was arrested after blowing Steunenberg to bits by a dynamite bomb. It is a narrative of murder and destruction seldom equaled in the criminal annals of the world.

This is a résumé of how coolly he went to work to murder Idaho's former governor, because the man had given offense



JAMES MCPARLAN

by upholding law and order during his term of office in 1899.

The third attempt, which proved successful, was made on the night of December 30th, in accordance with a threatening letter received by Steunenberg only the day before, that he should not be permitted to see the light of another year. The bomb was fastened to the gate that was always used by Steunenberg, and a fishline run around back of a neighbor's barn to pull it off. Orchard lay in the snow with the end of the fishline in his hand, and when his victim had entered the gate he gave a mighty tug at the string. A moment later he was seen tearing madly across that end of the town in his effort to escape. But Steunenberg was dead; the job had been a success at last.

The "inner circle" of the Western Federation was organized in May, 1899, following the dynamiting of the Bunker Hill

Upon the list of those to be assassinated were the names of former Governor J. H. Peabody, of Colorado; Chief Justice William H. Gabbert, of the Colorado Supreme Court; Justice Luther M. Goddard, Justice John Campbell and others.

The confession of Orchard, in addition to telling of the danger that has surrounded these men for years, also gives the history of attempts that have been made against their lives and those of others. It tells of the explosion of dynamite that wrecked the Independence depot at Cripple Creek on June 6, 1904, and cost the lives of fourteen miners. It recites the details of the assassination of Manager Arthur Collins, a genial man who gave offense to none, because of troubles with the Smuggler-Union mine, of which he was the active head, at Telluride. The other crimes and attempted crimes fill the one hundred and four pages of typewritten matter full to the brim with recitals that take one back to the Middle Ages, if he tries to conceive of the barbarity of the master brains that planned it all.

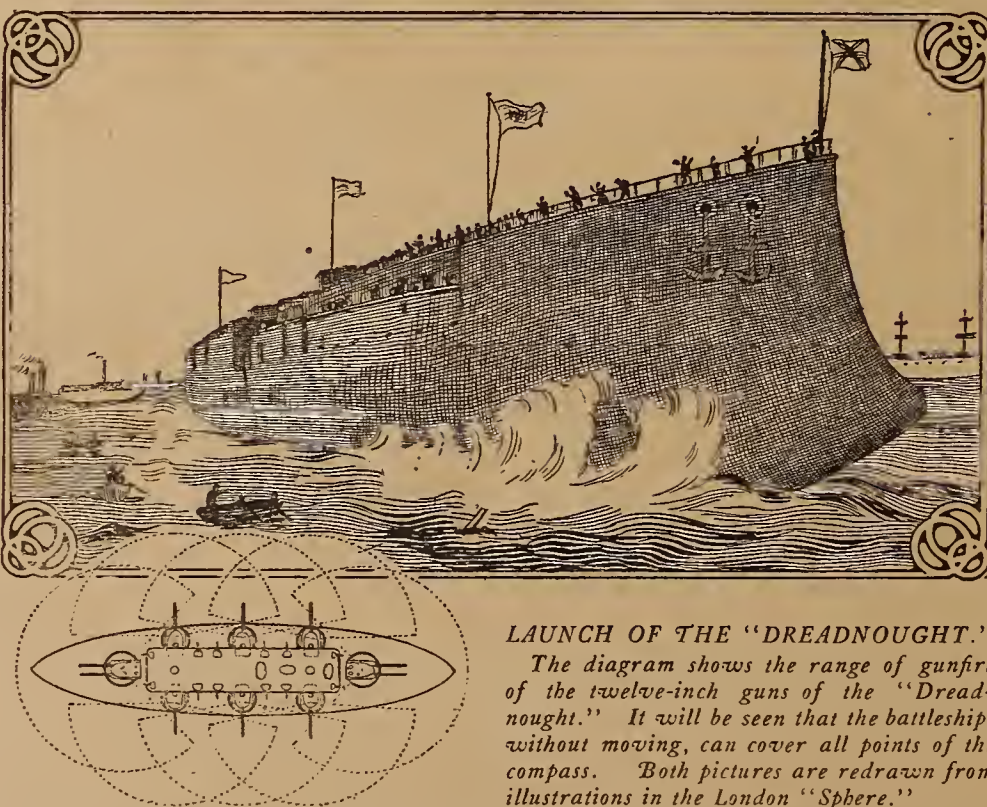
But McParlan's skill as a detective has put an end to it.

## Powerful Fighting Machines

The "Dreadnought," recently launched at Portsmouth, England, will, when completed, be the most powerful battleship in the world, and it is the boast of Englishmen that their new fighting machine, single handed, could whip the entire German navy. Forgetting the boast of the always enthusiastic English sailors, there is no doubt but that the "Dreadnought" is in a class of its own. It embodies a large number of novel features. In the first place, the displacement, as compared with previous battleships of the "Lord Nelson" type, has been increased by about two thousand tons, the "Dreadnought" displacing 18,500 tons and costing, when complete, over \$8,000,000. The most radical change, due to the experience gained in the Russian-Japanese war, is the elimination of the secondary battery and the reduction of the armament to two types of guns, the twelve-inch and the three-inch.

The "Dreadnought's" battery consists of ten twelve-inch guns, all mounted at about the same level on the upper deck; two forward in a turret, two in a similar turret aft, and three on each broadside, mounted within single turrets. For defense against torpedo attack the ship will carry eighteen three-inch guns.

The big ship is the result of the English government's effort to see how quickly a battleship can be built. She was launched in four months and will be completed in



LAUNCH OF THE "DREADNOUGHT."

The diagram shows the range of gunfire of the twelve-inch guns of the "Dreadnought." It will be seen that the battleship, without moving, can cover all points of the compass. Both pictures are redrawn from illustrations in the London "Sphere."

eighteen months from the day on which her keel was laid.

Comparing the "Dreadnought" with the American battleship Connecticut, just recently completed, American naval constructors find that the British, though in a position to profit by all the lessons of the Russian-Japanese war, were unable to construct a more powerful boat than the Connecticut without materially increasing its tonnage. Therefore, the Connecticut heads the list of the sixteen-thousand-ton battleships of the world.

The Connecticut was launched three years ago, and it was intended to make it the most powerful ship of that tonnage in the world. Since then the first instructive battles between ironclads have been fought in the waters of China. The sea fights of the Spanish-American war were too one-sided to make them of much use to naval constructors, but the long sea conflicts around Port Arthur and the annihilation of Rojestvensky's fleet in the Sea of Japan enabled the builders of warships to gain many new ideas.

American ingenuity in the placing of the big twelve-inch guns has offset the advantage given by the increase of size in the British ship. At a recent meeting of the Merchants' Club, the Chamber of Commerce of Boston, Naval Constructor William J. Baxter, of the Brooklyn Navy Yard, who is superintending the building of the Connecticut, spoke on modern methods of naval construction. He discussed the "Dreadnought" and showed how the arrangement of the heavy guns on the Connecticut neutralized in a large degree the superiority which the English thought to obtain by making the ship twenty-five hundred tons heavier. The chief object sought in the building of the "Dreadnought" by the British was to gain increased fire from the bow guns. So it has three turrets, each with two twelve-inch guns, in the bow. This gives a total of six guns there as against the Connecticut's four.

But in the arrangements of the guns on the after deck the ingenuity of the American has kept his boat on an equality with the British ship built three years later. Each battleship has four guns of the twelve-inch caliber.

## The Salary of the President

The salary of the President of the United States is always in the limelight of publicity, and periodically efforts are made to boost it. Fifty thousand dollars a year for the office, which is the highest in the gift of the American people, does not seem sufficient, and yet the economical people, who are jealous of anything savoring of European lavishness, believe, or say they believe, that fifty thousand dollars is all any American citizen has a license to spend in a year, even in the White House. Liberal men say the executive should receive a salary of seventy-five thousand to one hundred thousand dollars a year.

On the subject we quote from the Philadelphia "Public Ledger":

"In the course of the debate an investigator has enlightened the world on all forms of government appropriations devoted to the executive mansion. The president is paid \$50,000 a year into his private purse, and the following, who may be classed as the clerical force employed in executive work, are paid by the government: Private secretary, \$3,250; assistant private secretary, \$2,250; stenographer, \$1,800; five messengers, each \$1,200; two doorkeepers, each \$1,200; four other clerks at salaries ranging from \$1,500 to \$2,500; telegraph operator, \$1,200; two ushers, each \$1,400; one night usher, \$1,200; a watchman, \$900. These employes perform government duties. In addition to the expenditures for this purpose, the government furnishes a man to take care of the fires at \$864 a year, a steward at \$1,800, and allows two special funds of \$40,000 and \$8,000 a year.

"Of the larger sums, \$12,500 is for repairs and for refurnishing the White House; \$2,500 is for fuel; \$4,000 is for the greenhouse; \$15,000 for gas, matches, the upkeep of the stables, and various miscellaneous matters. The \$8,000 is for stationery, carpets, the care of the stable, as distinguished from expenditures for feed, equipage, and the like. The occupant of the White House actually receives from the government about \$125,000 a year.

"The people of Kansas are inclined to think that this is enough. They point to the fact that the president has private means, and that the royalties on his books amount to a considerable sum annually.

"This part of the argument is scarcely fair. Poor men have occupied the presidential chair, and other poor men are likely to get the job, men who perhaps will not have the skill or the luck to write popular books which will be classed among the 'best sellers.'

"The president must perforce entertain a great many persons, and on many occasions the goodly company gathered about his board are expensive guests. President Fallieres, who has just been chosen president of the French republic, receives a salary of \$120,000 a year, and in addition is given an allowance of \$120,000 and a furnished palace or two. Nevertheless, in the frame of the popular mind, one may well hesitate to suggest even diffidently that \$125,000 a year is a modest stipend for those in high places, especially in a struggling young country like the United States."



## Sons of Eminent Men

(CONTINUED FROM LAST ISSUE)

IT WAS while William H. Vanderbilt and his family were living on the Staten Island farm that Cornelius the second showed what stuff he was made of. Though his grandfather was one of the very richest men in the country, young Cornelius, still in his teens, knew that his father was short of funds. So one day he crossed the ferry from Staten Island to Manhattan Island and applied for a job as clerk in one of the banks. He had some difficulty in reaching the president of the institution, but persisted, and finally was led to his presence. After listening to the application the banker asked the lad's name.

"Cornelius Vanderbilt," was the reply.

"Possibly related to Commodore Vanderbilt?" questioned the banker, somewhat quizzically, whereupon the boy said he was the grandson of the famous railroad king, but explained that he wanted to be employed, if at all, on his own merits, and not because he had a grandfather. He was taken on and made good as a bank clerk. Later when his grandfather heard about it and asked the young man to accept a minor place in the offices of the New York and Harlem Railroad at \$2,200 a year, he made good there, too. William K. Vanderbilt and his son "Willie K.," also the sons of Cornelius the second, are all prominently before the world, but only Cornelius the second made good on his own initiative, though the abilities of William K.—both initiative and executive—are of a very high order.

Cornelius the third, whose invention of an improved locomotive firebox made some stir in the railroad world a few years ago, is the only member of the fourth generation of Vanderbilts who has ever seemed to take life seriously, and even he appears to have dropped out of the running, being now inclined to live chiefly for social success and amusement. It is likely, though, that he is one of those who would have made good with the "half a chance" that is supposed to be the portion of the youngster born with plenty of ambition but no money. When he was planning his firebox he showed energy and pluck enough to take a personal course at stoking a locomotive, just to see how steam was kept up, and to find out how improvements might be made.

None of Jay Gould's four sons—George, Edwin, Howard or Frank—has made a failure, but only one, George, has attained to anything that might not be reached by any rich man's son. When Jay Gould died it was the general opinion that George would be able to conserve the family fortunes, but no one expected he would be able to do more. In fact, it has often been said that Jay Gould himself expected no more. Yet George Gould is one of the great, strong forces in the railway world to-day.

J. P. Morgan, Jr.—"Jack"—promises to become a fine example of the successful son of a great financial magnate, but it is yet too early to set him down as an unqualified success. John D. Rockefeller, Jr., and Harry Payne Whitney, son of William C. Whitney, are practically in the same class. As all three of these young men have the advantage of vast wealth and almost boundless prestige behind them, however, enough success to keep them permanently in the public eye is virtually assured to them.

The Belmonts are very generally familiar as the prominent sons of a prominent man, but only one of them, August, has shown great initiative and force. James Gordon Bennett, of the New York "Herald," is one of the great newspaper men's sons who have carried along their fathers' life work with credit. This he has done certainly. His paper was great in the elder Bennett's time, and it still holds its place.

Many governors of states have left behind them sons who are as great as their sires, though not many of them have chosen politics for their field. Richard Yates, son of the great "war governor of Illinois," is an exception. He also served as governor, his inauguration coming some thirty years later than his father's. The Rev. Dr. Morgan Dix, rector of Trinity Church in New York, who might have been a bishop over and over, is the son of that New York governor, John A. Dix, who said: "If any man attempts to haul down the American flag, shoot him on the spot."

Bishop Potter, of New York, is the son of one bishop and the nephew of another. Dr. Lyman Abbott, editor and divine, is the son of Jacob Abbott, the historian, and member of a New England family that has made good for generations. Peter Cooper Hewitt, son of Abram S. Hewitt, publicist and captain of industry, made good at thirty or thereabouts most remarkably in the yet infant service of electricity. He bids fair to enroll his name on the list of inventors along with Watt and Morse and Edison and Tesla. Am-



## Around the Fireside

bassador McCormick, whose name has been in the forefront a good deal of late because of his delicate position at the Russian court, is a son of one of the McCormicks made famous by the reaper.

[ TO BE CONCLUDED NEXT ISSUE ]

## \* Geronimo Wants to Go Back

Geronimo, the old and famous Apache chief, who is now living with his eighth wife on the Fort Sill Reservation in Indian Territory, is making his final effort to induce Uncle Sam to permit his removal to his native state, Arizona. A belief that should he die outside his native state he would forever be denied the pleasure of the happy hunting grounds is prompting him to action, for Geronimo, who is now seventy-six years of age, realizes that he is not long for this world. He is daily making preparations for his declining days. The first step was two years ago, when Geronimo joined the Dutch Reformed Church. Geronimo's second move was that of becoming a benedict during the Christmas holidays. This was Geronimo's eighth time to be married. The woman he chose for his wife was an Apache widow fifty-eight years old, who bore the name of Sousse. Life was becoming too strenuous for Geronimo without a helpmate, so with very little wooing he took to his home on the Fort Sill Reservation his new bride.

The last of Geronimo's undertakings is that of securing his liberty from the iron bands that now hold him a prisoner of war upon the military reservation, that he may return to Arizona and spend his de-

sonally the czar. Reviewing the book, the New York "Times" says:

"Gapon was born in the village of Biliki, in the Province of Poltava, South Russia. At the age of fifteen he read Tolstoy, and became more contented with his lot, but he confesses that at an early age he showed an unruly spirit, particularly in the theological discussions. Shortly after his marriage he was ordained a priest and took up chapel work at Poltava. His married life was not long. His wife died, after which 'it seemed as if all clear meaning had gone out of my priestly life.' After one or two vain attempts, Gapon secured admission to the Ecclesiastical Academy at St. Petersburg. When he preached he drew his ideals from the Bible and not from the fathers of Russia, either political or ecclesiastical, with the result that his sermons were not popular. His religion was so broad, practical and wholesome that his congregations could not understand him; but the government did, and under some pretense sent him to Crimea. On his return to St. Petersburg again, Gapon began mission work under Sabler, the assistant of Pobiedonostseff. In this way he became acquainted with revolutionists who used the labor missions as a blind, and with the workings of the Political Police. Gapon was sent to Moscow by the head of the Political Police to aid in organizing the Workingmen's Association in that city. Trepoff was then chief of police in Moscow, and was trying to secure the aid of the workingmen by making them believe that the government was their friend, and promising them adminis-



GERONIMO, THE FAMOUS APACHE WARRIOR, AT THE STEERING WHEEL OF A MODERN AUTOMOBILE

clining days unmolested. To accomplish this Geronimo has paid a visit to the mountain home of Chief Quanah Parker, of the Comanche tribe.

Chief Parker became well acquainted with President Roosevelt during the latter's wolf hunt in the Kiowa-Comanche Indian Reservation in Southwest Comanche County, and has called upon the president at the White House on business connected with the tribe. Geronimo is confident that if Quanah Parker will intercede for him to the President of the United States he will secure his liberty.

It may be necessary to move Geronimo and his tribe of two hundred out of the reservation to make room for the United States regular army maneuvers, which will be carried on at Fort Sill beginning this spring. It is not anticipated by any of the officials here that Geronimo will secure his release, and should he be allowed to return to Arizona his life would be of short duration. There are a number of white people in that territory where his depredations were committed, who say that if he were set at liberty he would never be allowed to get off the train alive. The department officials, they say, are too well acquainted with Geronimo to allow him to go about the country with all the liberties of an American citizen. They say that if Geronimo were allowed to drink it would require a whole company of United States soldiers to corral him and bring him under subjection.

## \* The Hero of "Bloody Sunday"

"The Story of My Life" is a recent issue from the pen of George Gapon, the Russian priest, who on Sunday, January 22, 1905, led the workmen of St. Petersburg to death in a vain attempt to petition per-

Gapon's change of mind, took measures forcibly to prevent such a meeting. The priest readily believed that the czar would receive him, and if, for any reason, his majesty was prevented from so doing, that the soldiers would not fire on him. So he prepared this petition to be presented to the czar in person:

"Sir, I fear that your ministers have not told you the whole truth about the state of affairs in the capital. Be assured that the workmen and the people of St. Petersburg, trusting in you, have irrevocably decided to appear to-morrow at two p. m. before the Winter Palace, in order to present to you a statement of their needs and those of the whole Russian people. . . . I, the representative of the workmen, and my brave comrades guarantee the safety of your person at the price of our lives."

"Gapon says that the ministry promised him that the petition would be received. What followed when the processions of workmen converged upon the Winter Palace and the reception they met with are matters of history. Even the police, we are told, believed that the military would not fire. When too late, Gapon realized his mistake.

"Horror crept into my heart. The thought flashed through my mind, 'And this is the work of our Little Father the czar.' Perhaps this anger saved me, for now I knew in very truth that a new chapter was opened in the book of the history of our people. I stood up, and a little group of workmen gathered around me again. Looking backward, I saw that our line, though still stretching into the distance, was broken, and that many of the people were fleeing. It was in vain that I called to them, and in a moment I stood there, the center of a few scores of men, trembling with indignation amid the broken ruins of our movement. Again we started, and again the firing began. After the last volley I arose again and found myself alive, and still unhurt."

"On the same night, in disguise, Father Gapon addressed several meetings of revolutionists, and later on escaped from St. Petersburg, and journeyed to the frontier. From there on to Geneva, Paris, and London he journeyed as a disciple and prophet of the 'Cause' in Russia."

## \* News Day in the Klondike

Benjamin Downing, the Klondike mail carrier, who for the past eight years held the contract for the transportation of mail between Dawson and Fairbanks, died recently. His death was a signal for much sorrow among the hardy toilers of the Alaskan fields, to whom he took the news from the outside world. In the early days of the gold fever pluck and endurance were highly essential to Downing's work, and some of the tales the daring mail carrier was wont to tell left no doubt but that each trip he made was fraught with much suffering and great danger to life.

Downing's mail route was nine hundred miles, and along it he established stations. He maintained about two hundred and twenty-five dogs. In addition to the mail he did a large business carrying supplies and gold. On one trip he is said to have safely conveyed five hundred thousand dollars' worth of dust.

Mr. Adney's "The Klondike Stampede" gives a person a good idea of the eagerness of the reception of news among the early miners in the far north gold fields:

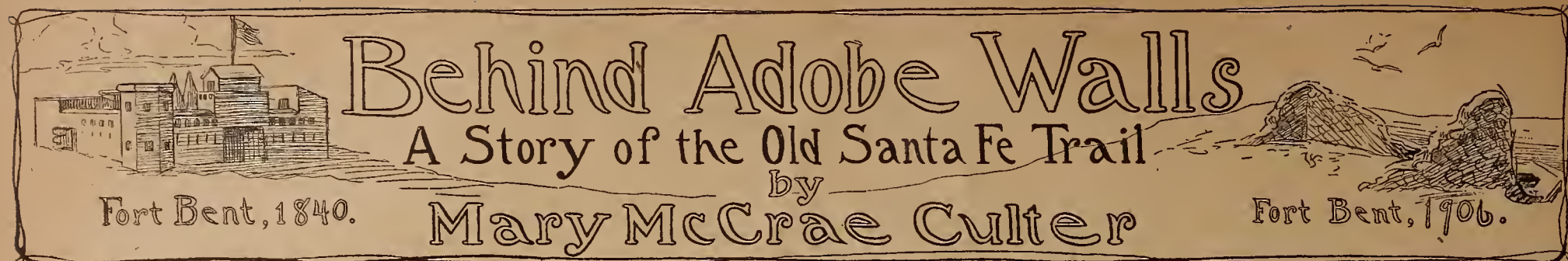
"The first news of the Spanish War which penetrated the Yukon fastness was brought by the 'Montana Kid,' a gambler escaping from justice. His story was not believed. Not long after that an old Seattle newspaper found its way to town. It was too precious an article to trust to the mass, and it was decided that a public reading should be given of its contents by a lawyer from San Francisco, who had a good voice. At the appointed time a crowd of nearly five hundred men gathered about the dry-goods box set in the street.

"Clear and distinct came the words, 'Dewey's Great Victory.' There was a moment's silence, then cheer upon cheer arose, and hats and arms were waved wildly in the air. When the article was read and the listeners understood what it was about, the enthusiasm knew no bounds. Every item of news was read and reread. Nothing else was talked of that night.

"Not long after a second paper was procured, which told of the progress of the war, and another reading was held. When the story was reached of the Spanish captain who nailed his colors to the mast, and his brave men who fired as the ship went down, there was a dead silence. Then a low voice said, 'They were right! they were right!' Not a man was in that crowd whose heart was untouched by that instance of the enemy's pluck.

"The first papers with the war news brought whatever was asked. In justice to the owners, however, it should be said their demands were not exorbitant. Later, when more papers were brought, they sold from twenty-five cents to a dollar apiece."





## CHAPTER I.

"EVER been in these parts before, stranger?" The young man who was addressed in this abrupt fashion turned quickly to look at his questioner. He beheld a figure familiar to all who traveled the line of the Santa Fé trail in the early sixties, a man short and wiry in build, with rough beard and long gray hair, keen of eye and deliberate in movement. He was dressed in the regulation costume of the frontiersman, a full buckskin suit, Indian moccasins, and a broad-rimmed, soft felt hat. In his belt he carried a couple of pistols, two large knives, and a tomahawk. To the young man, fresh from the refinements of Eastern civilization, there was much that was repulsive about this Westerner, with his soiled clothing, unkempt hair and tobacco-stained chin and beard. Something of this thought must have crept into his eyes, for the frontiersman, not waiting for an answer, continued,

"Tain't much like what you're used to, I reckon, an' no doubt you'll think us a pretty tough lot o' varmints to start with, but before you've been here long you'll discover that there's truer friends and braver hearts under Western buckskin than ever you've found under the fine clothes of the states. Where do you hail from?"

"Philadelphia."

"An' how do you name yourself?"

"John Smith."

There was a slight hesitancy in tone which did not escape the keen ear of the scout, who answered,

"Good enough name for these parts, I reckon, though it might not strike your folks as very fancy; but one name's as good as another to the varmints that are hangin' about waitin' for our scalps. No matter what your name may be back in the states, you stand for what you are out here—an' that's all of it. Come in with the wagon train last night, did ye?"

"Yes."

"Had a right smart bresh with the Comanches at Pawnee Fork, they tell me."

"Yes. There must have been two hundred and fifty or three hundred in the gang. They made things lively for us for a time, but they soon found we were too many for them, and withdrew; but not until three of our poor fellows were killed."

"That's the way with them Comanches. They're cowardly as coyotes, an' never will strike unless they think they have the advantage. I've known 'em to shadow a party for days, waitin' to pick off some straggler or to ketch the camp off guard. An' Pawnee Fork's their favorite hiding place. Many's the outfit that has been massacred there. There hain't a scout on the plain but breathes easier after he passes the creek. Goin' on with the train to Santa Fé, or air you goin' to prospect 'round here?"

"I will stay here for the present."

"Goin' to try huntin' and trappin'?"

"Yes, a little. I want to make several trips into the mountains, if the Indians are not too bad. Is the hunting good about here?"

"Well, 'tis an' 'tisn't. There's wolves an' antelope, an' buffalo, an' there's some beaver and mink; but this country's been hunted ever since Fort Bent was located here, an' game's gittin' skerse hereabouts. Ef you want real sport, an' a fine pack, you'll better join our party that starts for the Ute country next week. There's fifteen of us goin'. You can't git a better chance to see the country, git a taste of genuwine adventure, an' make a little fortune easy, than this will be."

"How long do you expect to be gone?"

"Three months, mebber; mebber a year. There's never any tellin' when we'll be back from such a trip, or whether we'll be back at all. That's where the interestin' part comes in. Tain't every tenderfoot that I'd be willin' to take with me on sech a trip; but you look as if there was fightin' blood in you, an' grit, an' endurance. If I do say it myself, there hain't a luckier trapper nor scout than I be, an' there's few Indians in the country that hain't friendly with Trapper Bill. I've hunted and scouted this country for fifteen years, an' know every foot of it, from the Navajo deserts to the Cheyenne country above Fort St. Vrain."

"How long has it been since this fort was built?" asked Smith.

"It was put up by the three Bent brothers in 1828. As you see, it was built of adobe—sun-dried brick. It hain't nigh the fort it was when I first come here. The old fort was one hundred an' thirty-five feet square, with walls fifteen feet high an' four feet thick. In 1852 the United States government wanted to buy it from old Colonel Bent, but would only give him twelve thousand dollars, while he wanted sixteen thousand. I tell you there was the mischief to pay around here then. The old colonel allus was pretty free with his tongue, especially when it got warmed up with whisky, an' he made the air around here bluer than Indian summer. At last he ordered out all the wagons—sixteen of 'em—loaded everything into 'em that he could, an' ordered us to drive along down to where the Purgatoire River empties into the Arkansas. When we were fairly started, he went back into the fort, set fire in a dozen places, an' jumping onto his bronco, followed us as fast as he could. There was considerable powder stored here then, an' before we had gone very far there was a terrible explosion, and the poor old fort went down in ruins. It

was the fooliest trick I ever knew the old colonel to do, but it was all the fault of the whisky. Twelve thousand dollars blown into smithereens, just because he couldn't get four thousand more. Did you ever hear of anything fooler? After Bent moved away the fort was rebuilt and patched up for a stage station, as you see it to-day. Many's the skirmish that's taken place under these walls, and there'll be many another before the pesky redskins is settled. They're a-gittin' worse every year, an' nothin' but gunpowder will ever civilize 'em. This may be my last trip out for some time, so jest think it over, an' decide to go along."

The old scout sauntered away, and the young man turned again to his survey of the strange scenes around him.

He stood in one of the hexagonal towers of the fort. After being accustomed to the solid brick and stone buildings of the extreme East, and knowing well the havoc of shot and shell upon even those substantial structures, the adobe bricks and low walls of the fort appeared ridiculously inadequate to him. It was hard for him to believe that such a shell of a building could be a strong defense against the wild hordes of redskins that terrorized the Western prairies. The walls of the fort formed the outer walls of a number of apartments,



"What is left to me, anyway, but danger and death? Who knows—who cares—what becomes of John Smith?"

all of which opened into the hollow court in the center. Heavy wooden gates guarded the entrances, cannon were mounted in the towers, and the walls were loop-holed for musketry. The roofs were made of poles covered with a heavy coating of mud and gravel. A well in the central court supplied the garrison with water. The fort was built on a slight rise of ground on the north side of the Arkansas River. The famous Santa Fé trail was the sole connecting link between it and all other points of civilization. The valley in which it stood was about two miles wide at that point. At a little distance from it, on the south and east sides, the Arkansas River wound its way eastward, bordered by a heavy fringe of cottonwood and willow timber. South of the river the land rose gradually to broken bluffs of gray, red and brown sandstone in very marked strata. On the north the valley was bounded by low, abrupt hills formed of alternating banks of whitish clay and ledges of gray rock. The surface of the interlying prairie was covered with a growth of short, curly buffalo grass, dotted with clumps of sage brush and cactus. Over all shone the glorious sun of a Colorado autumn, while purple hazes dropped their delicate veil over the bluffs or gathered in deepened shadows in the little cañons. It was a fair scene upon which to look in time of peace, and from the safe shelter of the old fort's walls. But, Smith reflected, there was scarcely an acre of the surrounding country within a radius of a hundred miles but had been the scene of fierce and bloody encounter. Only a few miles away the famous Sand Creek massacre had taken place a few months previously, and since that time the Indians had been doubly vicious and bloodthirsty. Stragglers from fort or wagon train were promptly killed and scalped. The few ranchers who had dared to seek homes for them-

selves in some of the grassy valleys had either been cut off or had been driven to seek shelter in the nearest fort. The government had been obliged to distribute companies of soldiers at all stage stations, and send escorts with every stage. The troops detailed to Fort Bent were encamped on the river bottoms east of the fort, and their presence added to the life of the scene.

The great wagon train in which Smith had made the journey across the plains was formed into a camp corral to the north of the fort, and the prairie was covered with its hundreds of mules, which had been "staked out" to graze within safe range of the cannon in the fort.

It was a stirring scene upon which to look. From his seat upon the battlements of the wall, Smith rapidly transferred its image to his already well-filled sketch-book. As his pencil drew the wild surroundings, the young man involuntarily sighed. A wave of homesickness for far-away Philadelphia surged over him, and for the moment he regretted the sudden, desperate resolve that had banished him to this lonely and dangerous desert.

"But why should I regret?" he asked himself. "What is left to me, anyway, but danger and death? Who knows—who cares—what becomes of John Smith?"

He thrust his sketchbook and pencil into his pocket, and rising from his seat, hurried to lose himself and his thoughts in the busy scene below.

A bustle of preparation was going on around the fort. The long wagon train was getting ready to resume its journey toward the West. Needed supplies of ammunition had been obtained from the fort, and fresh supplies of venison and buffalo meat purchased from the hunters and friendly Indians who made the place their rendezvous. Some of the travel-worn mules were exchanged for fresh ones, and every preparation made for the final, slow, uphill portion of the long journey to Santa Fé. Another escort of soldiers was detailed to attend the train on its perilous passage through the haunts of the savage Utes, and the whole expedition was placed in charge of Trapper Bill, who was one of the most experienced scouts on the plains.

"I reckon we won't git out on our huntin' trip, after all, pardner," the scout said to young Smith, the morning of the start. "I'm ordered out with this wagon train, and won't be back for mebber two months. I 'low you'll have to stay pretty close to the fort in the meantime. Ef the signs read right every man will be safer inside of walls for some time to come, and tenderfeet most of all. Even when the prairies seem perfectly clear there may be a red devil behind every clump of sage brush, and every hummock of sand may cover an Apache. We'll have our huntin' trip in good season; an' mebber it's just as well for us not to git too far off into the mountains until the reds git settled a little better. So long," and he was gone.

## CHAPTER II.

Society at Fort Bent was rather mixed in those early days of Western civilization. The fort was occupied by traders, hunters, trappers, scouts and military. Many of the French scouts and trappers had married Indian or Mexican wives, and some of the officers of the troops had brought their families with them, so that altogether it was quite a cosmopolitan company that dwelt within the fort or close beneath its walls and the shelter of the troop encampment.

Smith was a fine-looking, genial young fellow, and was soon quite at home in his new abode. He was received without question by these free-hearted Westerners. Whatever his name or his record in the East, the West knew him only for what he proved himself to be. No man questioned another, since all records were more or less questionable. So "John Smith" was simply John Smith, although everyone felt sure that for some reason his real name had been left beyond the Mississippi.

To Perdita Montoya, the belle of Fort Bent, John Smith was the handsomest, most gallant young man in the West.

"He is so tall, so fine. His eyes are so blue. He is adorable," she told her friend Cara Monette.

"Do not lose your heart to him, my Perdita," responded her friend. "He cares not truly for us Western people. His heart is far away. Do you not see it in his eyes sometimes when he thinks no one is watching? Do you not feel the sadness that comes over him when he looks away toward the rising sun, or watches the stage start on its journey to the states? You would better give your smiles and your heart to Belzy Pardee, who worships the ground you walk on."

"No, no," cried Perdita, with a shake of her pretty head. "I like not Belzy Pardee. He loves me so much he wearies me. I will make John forget the East. I will draw his heart away from the rising sun. I shall smile at him, I shall talk to him, until he thinks only of me. He makes many beautiful pictures, and he draws many of me. You shall see what I can do."

Smith was indeed a fine artist. One reason for his coming to the Far West had been to obtain sketches of its scenery and people, and find material for a book which he hoped would make him famous in the literary world. He had found much to sketch during the time of his journey westward, and there was abundant



material for both pen and pencil in the multitude of characters that swarmed in and out of the fort. Perdita Montoya was a perfect type of the girls of her race. She had been brought up within the fort, and had absorbed much of the refining influence of the Eastern people with whom she had come in contact.

"She would make a splendid character in a book," Smith told himself. So he cultivated her acquaintance, caught her crude ideas and broken expressions for future use, and flattered her by making many sketches of her in many poses. He was so absorbed in the thought of his intended work that he did not stop to consider the effect of this unlimited attention upon the heart of the ignorant girl. He thought of her only as the character in his book, and beyond that, as the sweetheart of the French trapper—Belzy Pardee. No thought of love-making entered his mind. Was not his broken heart left far away in the East? So he sketched and talked and smiled and danced with the merry Perdita, and forgot his troubles for the time being; while she—in her ignorance—thought she was winning his heart, and grew more and more assured of her power over him. Poor Belzy sighed in vain, and made himself duly miserable over the girl's faithlessness.

At first Belzy was very much inclined to be jealous and angry with Smith for taking his sweetheart from him, as he supposed; but ere long he found that the love-making was not on Smith's part. True, he was almost constantly with Perdita, but the companionship was more of her seeking than of his. If Pardee appeared anywhere near to the couple, Smith was sure to welcome him and to draw him into the conversation. At such times Perdita would pout angrily, or take herself away without ceremony, which—while it grieved Pardee greatly—seemed only to amuse Smith, who straightway appeared to forget all about her.

The trapper's ears were as alert and attentive as his eyes were keen, and although he used every means, both honorable and dishonorable, he never could overhear a word of love-making from his rival. So, after many vain attempts to divert Per-

ditas favor to himself, the poor fellow settled down into a miserable acceptance of the situation, and looked and sighed the love which he was not allowed to express in words.

To Smith this was a new and not at all displeasing situation which he was not slow to appreciate. It worked finely into his literary production, as well as furnished spice for his really stale existence. And so the days at the fort dragged by. There were times when merry bands of the young people made short excursions up and down the narrow valley, or followed the trail for a few miles; but such outings were few, and could only be taken when the soldiers were all at the fort, and when the scouts reported that no Indian bands were in the neighborhood.

Two months had passed since Smith's arrival at the fort. Several times he had gone out with parties sent to the rescue of ranchers or travelers. He had tasted of the excitement of Indian raids and had witnessed the fiendish cruelty of the savages when chance gave them the advantage. In times of comparative peace he had made some short hunting trips with Belzy Pardee and others into the hill country within easy reach of the fort. Wild turkeys, quail and grouse were plentiful, and buffalo and deer were easily to be found. Much game was necessary to supply the wants of the numerous colony at the fort, and the hunters were kept busy to fulfill the demand.

One day a wagon train arrived from Fort de Taos, and with it came Trapper Bill. Smith was one of the first to greet him when he reached the fort.

"You are a good guesser," he said. "It is two months to the day since you went away. What sort of trip have you had?"

"Fine—fine!" replied the trapper. "Lots of adventure, lots of fighting—that's what makes life worth living. Had a big brush with the Arapahoes this side of the Range; an' after we got over the Divide the Utes came after us pell-mell. Ef they'd a-knowned Trapper Bill was with the train they'd never have been so fresh. Every blame one of them Utes knows me, an' knows that I'm good for the whole bunch any day, ef I've got half a show for fight-

in'. They drew off in a hurry when they found I was there, an' when they seen they couldn't stampede the mules an' run 'em off.

"Game's fine, up in the mountains this year. I run onto Joe Fager t'other side of the Range, an' he told me his party was havin' fine luck. They're goin' down to Trinidad for fresh supplies, an' I'm to join 'em there with a party from here. We'll go over the Range, into the Mexican country, hunt up along the streams of the western side, an' come out into the Cheyenne country an' back along this side of the Rockies, by way of Fort St. Vrain. There'll be about twenty in the party. Do you want to go along?"

"Indeed I do," said Smith, heartily. Life at the fort was becoming burdensome, and Perdita's devotion was too marked to escape attention any longer. He was glad of a change which would break up the dead monotony of his life, and which—in addition—would break up a companionship which was becoming disagreeable. The trip into the mountains, while fraught with danger and hardship, would give him new and valuable experiences, and would help him to forget the passionate longing for the East which sometimes almost overcame him. He had many times regretted the sudden resolve which had brought him so far into the wilderness, and sometimes he was tempted to go back. Then he thought, "Why should I go? Who would care to see me? Now that I am here, I had better stay and see as much of Western life and Western people as I can."

So now he made eager arrangements to join Trapper Bill's expedition into the heart of the mountains, anticipating excitement, and perhaps substantial gain from the novel experiences.

Perdita was wild with remonstrances when she heard of the proposed trip.

"You must not go," she cried. "The Utes are fierce, and they hate the whites with a deadly hatred. You will never come back."

"But there will be twenty men in the party, all experienced hunters and fighters except my self. Trapper Bill and his comrades know every foot of the moun-

tains and every trick of the redskins. If there is safety anywhere, it is with such a party," Smith answered.

"But it is the dead of winter. The snows in the mountains are heavy and you will suffer from exposure. Why not wait at least until spring?"

"That would be to miss the chance of going with this experienced party," Smith replied. "As for exposure, I do not care. Better that than this wearisome idleness. Besides, a good pack of pelts, such as we expect to bring back, will be worth a little fortune."

"And how long will you be gone?" the girl asked anxiously.

"No one knows—I, least of all. Pardee can tell you better than I."

"Is Belzy going?" she asked.

"No. He talked of it at first, but has decided to remain here."

Perdita shrugged her shoulders. "He might as well go. It will do him no good to stay here."

Smith laughed. "You should not be so hard-hearted. Take pity on the poor fellow, and be kind to him. You will want him to talk to you and dance with you when I am gone."

"No, no. I shall not dance. I shall not sing while you are gone. I like not Belzy. He loves me too much. He is a soft-head." Her tone was so scornful as to amuse her auditor greatly. "You are unkind to poor Belzy," he said. "When he pays you the high compliment of believing you the sweetest girl on earth, you should not turn around and call him ugly names. If that is the way you treat your friends, it were better to be a stranger. It is a good thing I am going away. You would soon be calling me unkind names, too," he said lightly.

"Oh, no! Oh, no! I would never do that," she cried.

"You think not? Perhaps not now; but there is no telling how soon I might fall from grace. Remember, I leave Belzy as my representative. You are to be kind to him as you would be to me. Long before I come back you will have forgotten all about me."

"No, I shall never forget," she said.

[TO BE CONTINUED]

## A Corner in Easter Fashions

BY FRANK H. SWEET

"ALL other things equal," remarked Helen Westlake, without lowering her voice to the exclusive hearing of her two immediate companions, "I would marry a man who was particular—fastidious, even—in matters of fashion, and with some individual taste and the firmness to maintain it; and all that equal, a man of quick decision and push in business. Gentlemanly aloofness is all very nice, but I prefer a husband who will crowd his way into the arena and lead in the onward march of progress, even though his possessions should make such energy unnecessary. Men grow rusty just as rapidly as unused tools."

Two gentlemen were standing in an alcove examining some prints. As the words ceased, one of them looked at his companion quizzingly.

"That's for you, Tom," he said in a low voice. "I'm out of the race. She made that plain a week ago."

"Oh, I don't know," answered Tom Fallon, carelessly. "The words were rather sweeping, and the Toms, Dicks and Harrys are numerous. Miss Westlake is a very popular girl, and, as she says herself, has opinions. I am too hopelessly sluggish to even come within range of her benevolent leverage."

But after they had left the house, and he was walking down the sidewalk, his pleased expression showed that the words were still on his mind, and that he did believe he was within range of her thoughts. Indeed, of late he had fancied there had been a new look in her eyes and a new tone in her voice when he was near. But they had been elusive.

Westlakeville was very aristocratic, very small, and very remote from commercial centers. A hundred miles of uncomfortable railroad traveling, and two days' absence, were the necessities of out-of-town shopping; so the two dry goods stores and the one small millinery establishment were to a large extent the sources of supply as well as the last court of appeal of local fashion. If the monthly magazines said robin's-egg blue and the local stock was uncompromisingly dark, then it was dark that set the fashion until the stock changed.

A thought of this flashed into Tom Fallon's mind as he was passing the leading dry goods store, and he paused suddenly. The show window was filled with a display of neckwear, all green and stripes, with many combinations. This style had been having a run in the metropolis the past three or four months; after which, the demand slackening, the drummers had hurried their remaining stock out to such places as Westlakeville, with specious words and mysterious allusions to being just a little ahead of the times.

Tom Fallon's tie was cream, with a leaning to gray; and this shade he had worn for a year, without change. He liked it, and believed it peculiarly suited to his style and complexion. And just as thoroughly he hated green and all its ramifications, with a righteous hatred that knew no extenuation.

But only a few days before, in one of their semi-confidential moods, Helen had spoken disparagingly of the tie, and commended the progressiveness of the other young men, who had already adopted green combinations. Tom lingered by the window a few moments, then turned suddenly and entered the store.

"No, not a thing, Billy," he said to the proprietor, whom he knew. "I'm just idling away time. Fine display in the window there. Good trade, I suppose—making money—getting rich?"

"No such thing," energetically. "Folks think storekeeping's something great, but it's just struggling along on the very surface of starvation. I'd sell out in a minute if I could get an offer."

"Just talk, Billy," sarcastically. "You mean you would sell if offered several times the cost—say five or six thousand dollars."

"No, I'm in earnest. I'd be mighty glad to sell at cost, for three thousand—for twenty-five hundred, cash."

"Very well," quietly. "I'll take it. Suppose we draw up the papers at once. There's a lawyer next door."

Billy stared, then laughed incredulously, and with some relief.

"It's you who're talking now," he rejoined. "You've never done a day's work in your life, and you couldn't run a store if you tried. Besides, you've got too much

money to make me believe you want to fool with business."

"I'll have a try at it, anyhow—unless you back down on your word."

"Oh, I won't back down," dolorously; "if you really mean it."

A half hour later the papers were made out and signed, and the money passed. Then Tom turned briskly to the late proprietor.

"What are you going to do now, Billy?"

"Don't know," miserably, "unless I get a clerkship somewhere until I can find a place to start again. I'd never have said what I did to a regular business man. It's enough money, I suppose, but I didn't want to sell. I couldn't live away from the counter."

"I am glad to hear it," heartily. "Now I'll engage you to manage the store for me. First, I want you to pack away everything with green in it, dress goods, gloves, ties—everything. Pack them away so thoroughly they can't be got at under two or three months at least; then I'll let you have a thousand dollars to go and buy some cream and gray goods with. You know more about such things than I do. We'll make such a display of cream and gray as Westlakeville never in its existence knew before."

"But—good Lord, man!" in dismay. "That would ruin the store. Green's in fashion now, and cream gone out."

"We'll force it back, then," coolly. "Well, hurry things along, and then rush the new goods down from the city. And say, watch the other store, and cut prices freely. We want brisk competition. Put some of the new goods at cost, and dazzle the town with Easter bargains. And, oh, yes, don't mention this sale for the present."

He went out, and sought the other dry goods store. An hour later that was his also, with the proprietor engaged and given similar instructions. Then he went to the millinery establishment.

It still lacked five weeks of Easter, and the fashionable people were waiting for the first of the month to bring their new magazines with the latest possible hints on Easter costuming. When they came there was a general rush to the stores and the millinery establishment.

Tom Fallon was running up a column of figures when Helen Westlake hurried into the millinery store, her face worried and full of consternation.

"Show me some goods in green," she said to the girl behind the counter, "anything. I never heard of such poor business men! There isn't a bit of green in either of the stores, and even your window here is filled chiefly with hats in all combinations of cream and gray. But it's green that's in fashion, not cream. Surely you must have something in green packed away."

"Not in green," the girl answered; "we have goods in all other colors and shades, but all except the cream and gray are put aside for our display opening. They're the most beautiful."

"Oh, they're beautiful enough," impatiently. "But the whole town has turned cream and gray in the last ten days. I don't know a girl who isn't being costumed in some of its combinations. But I want a bit of green for fashion's sake. Please find some."

The girl shook her head.

"You'll have to ask the proprietor," she said.

Tom came forward gravely.

"Won't you—" began Helen; then she stopped, stared, and began to comprehend. "Tom Fallon, what are you doing there behind the counter?" she demanded.

"Crowding my way into the arena," he answered meekly.

Helen colored and bit her lip, then started resentfully toward the door. But half way there she paused, choked, and broke suddenly into a ringing laugh.

"You may show me the prettiest things you have in cream and gray," she said to the girl, as she returned again to the counter. "After all, it will be in fashion—in Westlakeville, at least."

When she left, Tom accompanied her to the door.

"I hope—" he began.

"Oh, that's all right," she interrupted. "I don't mind—now. But the idea of you making a fashion, and—crowding into business like that! Yes," anticipating the request in his eyes, and with just a suggestion of comprehension, "you may come up this evening if you like."



## Fancy Aprons

FANCY aprons have become one of the important accessories of dress in the past year or two, and certainly nothing adds a more becoming touch to the toilet. These little aprons are seen in every conceivable shape and of widely varied materials. Handkerchiefs, linen, Persian lawn, figured muslins and silks all go to form pretty afternoon or chafing-dish aprons, and are elaborated with lace, embroidery or hand work, as preferred, except such as are made from fancifully bordered materials, the borders of these being sufficiently decorative.

In the illustration an effective apron is shown. It is made from three large hemstitched handkerchiefs having three-and-one-half-inch borders in shades of blue. One handkerchief has the border removed from one side for its entire width, and the opposite edge has half the border cut off. This latter edge is then gathered to form the belt line. The edge from which all the border has been cut away serves as the



APRON MADE FROM THREE HANDKERCHIEFS

bottom, to which a deep ruffle is sewn. One handkerchief with the entire border removed from one side is cut in two to make this ruffle, the two raw edges being seamed at the center.

The third handkerchief has the full border removed on two adjoining sides, these strips forming the broad shoulder straps. The corner of this handkerchief remaining forms the bib, being gathered slightly into the belt. The various border strips now left are utilized for belt and back straps, all being lined or faced with white muslin.

The description sounds somewhat intricate, but in reality the work is very quickly and readily performed, and one of the daintiest possible aprons is the result.

Another delightfully attractive apron is formed of a square of dotted swiss or daintily figured lawn. It may measure thirty inches square, or a full yard if a larger size is required. From one corner measure along both edges about one third of the length. This will give a corner piece for a pointed bib similar to the one in the illustration. This must not be cut off, but a gathering string is run across the corner, forming the belt line, and a strong facing stitched on the wrong side. The apron is thus pointed, top, bottom and sides, and all in one piece. The edge is hemmed, lace trimmed or finished in any desirable manner, and ties of ribbon or of the material added to the belt. This is one of the easiest to make and most fascinating of all the new styles in the apron line.

MAE Y. MAHAFFY.

## My Cookies

This recipe did not originate with me, but it has been used to the exclusion of every other cooky recipe since my first year as wife and housekeeper. It has stood the test of nearly half a century; has been handed down from family to family, and has always been acknowledged the best of its kind. Such is the history of my cookies. You will thank me for still handing it on.

Four eggs, a cupful of butter, two cupfuls of sugar, two teaspoonfuls of lemon extract (of flavor to suit taste), three well-rounded teaspoonfuls of baking powder, and flour to make the dough of a right consistency.

In putting these ingredients together and in baking there are things that it pays to do—all simple things, however.

It pays to beat the yolks and whites of eggs separately, then beat well together.

It pays to use soft sugar; the "C" sugar,

light yellow, or the white "A" sugar. Granulated sugar will do, but results are not so good as with soft sugar.

It pays to sift the sugar, that all lumps may be removed.

It pays to thoroughly cream together the sugar and butter; then to add the beaten eggs and again cream all together. Have the butter soft, but not melted.

It pays to sift the baking powder and the major portion of the flour together several times. The exact measure of flour cannot be given.

It pays to have a quick oven, but not an oven fiercely heated. And it requires watchfulness and care in baking. The baking of an article is more than half in definite requirements.

Use no other wetting—no milk or water. The dough must not be stiff, but it will bear being stiff enough to handle without vexation. And no other cooky recipe I ever handled would.

Do not roll dough too thin. Cut out in large form, and do not lay the cookies too close together. When nicely browned, lay out to cool in light brown paper, and do not put away until thoroughly cold. This recipe will make at least fifty good-sized cookies.

From this same recipe a variety of excellent cookies may be made. Tempting ones have a large raisin pressed into the center of each before baking. More raisins may be pressed into the individual cookies if so desired, or currants may be pressed in instead. When browned, wipe over with beaten white of egg, sprinkle liberally with granulated sugar, and you have a form of beauty as well as palatability.

By adding a generous quantity of seeded raisins or a mixture of raisins and currants, before adding the flour, delicious fruit cookies will result. Spiced cookies, or seed cookies made likewise may be fashioned from the same mixture of ingredients. Frosted cookies are another change—either white, boiled frosting, or chocolate frosting. Fruited or nut frostings are excellent also.

As a young housewife, I often endured vexations, even to tears, when cooky-baking day came around, for I felt it a duty to make cookies for a cooky-loving man, though it tried my soul. When I had gotten hold of this recipe, my cooky troubles ended. Every housewife knows that the majority of cooky recipes calls for a dough so soft that to handle it is almost impossible.

This dough should be very soft and

moist. But it can be stiff enough to be rolled out and cut out and handled from first to last, without fret, worry or tears. And, better than all, these cookies are the most delicious cookies you ever tasted.

NELLIE HAWKS.

## For Newspaper Clippings

This most convenient article for newspaper clippings is made of two pieces of cardboard ten by five inches, covered with gray linen. Embroider or paint any design on top cover; line covers with fancy paper and mount corners with sterling sil-



FOR PAPER CLIPPINGS

ver pieces. Place between covers twelve large white envelopes, punch holes through all and fasten with ribbon and mark any of the twelve envelopes with Art, Prose, Poetry, Humor, History, Criticism, Personals, Musical, Society, Travels, Recipes and Miscellany. Embroider or paint across cover, "Newspaper Clippings." M. E. W.

## Tested Cake Recipes

MOLASSES CAKE—Two eggs, one cupful of sugar, one cupful of molasses, one cupful of buttermilk, one cupful of lard, one tablespoonful of soda—half in buttermilk and the other half in molasses.



From Original Photographure, Size 7x9 inches. Copyright, 1905, by The Ben Austrian Art Publishing Company, Reading, Pa.

MAKE A DASH FOR HIM

ONE-EGG CAKE—Two cupfuls of brown sugar, one half cupful of butter or lard, one cupful of buttermilk, two teaspoonfuls of cocoa, one egg, one teaspoonful of soda.

ORANGE CAKE—The yolks of four eggs, and whites of two well beaten, two cupfuls of sugar, one half cupful of butter, one cupful of cold water, three cupfuls of flour, three teaspoonfuls of baking powder, grated rind and pulp of one orange. Use the remaining whites of eggs for icing and flavor with orange for layer cake.

SPICE CAKE—One cupful of molasses, one cupful of sugar, two thirds of a cupful of butter, one cupful of sour milk, three eggs, one teaspoonful of soda, one teaspoonful each of cloves and cinnamon, one half nutmeg, three and one half cupfuls of flour.

SWISS CAKE—One and one half cupfuls of "A" sugar, two eggs, one half cupful of butter, one cupful of milk, two cupfuls of flour, three teaspoonfuls of baking powder.

WALNUT CAKE—Whites of five eggs, two cupfuls of sugar, one half cupful of butter, one cupful of milk, three cupfuls of flour, three teaspoonfuls of baking powder, one pint of walnuts. Beat whites of eggs and sugar together, beat butter to cream, and chop walnuts and dredge with one fourth of a cupful of flour.

WATERMELON CAKE—One cupful of sweet milk, three fourths of a cupful of butter, one cupful of cornstarch, two cupfuls of flour, whites of eight eggs, three tablespoonfuls of baking powder; flavor to taste. Take out one third of batter and color with fruit. Put this part in the center.

WHITE CAKE—Cream together two cupfuls of sugar and a scant cupful of butter, add one cupful of sweet milk, three cupfuls of sifted flour, three teaspoonfuls of baking powder, whites of five eggs beaten stiff. Flavor with vanilla or lemon and bake in layers or loaf.

SPONGE CAKE—One cupful of sugar, one cupful of flour, four eggs, juice and rind of one half of a lemon. Beat the eggs separately; boil sugar until it threads; put whites and yolks together, pour sugar in slowly and beat until cool, then add flour and lemon juice. Bake in a moderate oven in a square pan.

ORANGE SPONGE CAKE—Two cupfuls of sugar, two cupfuls of flour, one half cupful of cold water, yolks of five eggs, the whites of four eggs, a pinch of salt and two teaspoonfuls of baking powder.

ICING FOR BETWEEN LAYERS—Use the white of one egg beaten to a stiff froth, one half cupful of sugar and the grated rind of one half of an orange.

COLD-WATER SPONGE CAKE—Two cupfuls of sugar, two cupfuls of sifted flour, one half cupful of cold water, two scant teaspoonfuls of baking powder and five eggs. Stir the yolks and sugar to a cream, add the water next, then the flour and baking powder. The beaten whites of the eggs should be added last; then bake in a moderately hot oven.

SCRIPTURE CAKE—One cupful of butter (Judges, v., 25); three and one half cupfuls of flour (I. Kings, iv., 22); two cupfuls of sugar (Jeremiah, vi., 20); two cupfuls of raisins (I. Samuel, xxx., 12); two cupfuls of figs (I. Samuel, xxx., 12); one cupful of water (Genesis, xxiv., 17); one cupful of almonds (Genesis, xliii., 11); six eggs (Isaiah, x., 14); a little salt (Leviticus, ii., 13); one large spoonful of honey (Exodus, xvi., 31); sweet spice to taste (I. Kings, x., 10).

## Three Delicious Desserts and How to Serve Them

PINEAPPLE CREAM—After soaking and dissolving in a little warm water half a package of plain gelatine, add to it a cupful of sweetened fruit, either canned or fresh. When the mixture is cool but not stiff add to it two cupfuls of cream which has been thoroughly whipped. Fold the cream lightly into the mixture and turn it into a mold to chill. Any other fruits, such as peaches, raspberries, oranges or strawberries can be used, but the cooked fruit is the most successful. Great care should be taken in dissolving the gelatine and adding the cream before the gelatine has stiffened.

SIMPLE DESSERT—Mix a pint of cream with one teaspoonful of vanilla and half a cupful of pulverized sugar. Set on ice and when very cold whip to a stiff froth. Line the cups with sponge cake or ladyfingers and fill with the whipped cream. Drop large maraschino or mint cherries on the top of each cup.

TUTTI FRUTTI—Pineapple, oranges, figs, nuts, cherries, bananas and Malaga grapes cut in small, thin slices; sweeten and allow it to stand until a syrup has formed. Serve in the cups, covering the top of each with shredded cocoanut when filled.

MARIE WILKINSON.





# The Housewife

Lessons Learned from Trained Nurses

BY HILDA RICHMOND

[CONTINUED FROM LAST ISSUE]

BEFORE any girl is competent to marry she should have lessons in cookery for the sick," declared a weary woman just getting well from a long illness. "Of all the sufferings I endured for the past few weeks, none equaled the food I was forced to swallow or starve." A well-meaning young girl daily served mussy toast, weak coffee, burnt steak and abominable potatoes until it was no wonder the patient cried out in weariness. Why cannot some people serve a cup of tea without having half of it in the saucer? In this home there were two small fancy tea pots, but

to be pure and reliable, may be employed for beef broth, and are nearly always recommended by physicians. Pure, cool milk is another "must have" in most sick rooms, and should be served as daintily as possible, for an invalid's appetite is very fickle. With milk, pure water, beef broth and fresh eggs no amateur nurse need despair, for she has the means at hand for complete nourishment in a great many illnesses. Added to these fruits and cereals help out, and the city store needs hardly to be drawn upon for supplies for the patient. The water in which prunes and dried fruits have been cooked, cooled and sweetened, is grateful to the patient and forms a change from milk or lemonade. Variety is the spice of the sick person's life more than in any other case, and the wise nurse keeps up a series of surprises as the days go by.

The trained nurse makes the most of her surroundings wherever she is called upon to work, especially in the matter of food. While the country housewife is bewailing her lack of ice and expensive delicacies the resourceful young woman is preparing little dishes out of chickens, eggs, fruits, beef, vegetables and other things too common to be noticed by the mistress of the house. She knows how to serve thin bread and butter with a bit of celery heart, a tiny bit of mush and milk, baked apple transparent as jelly, a baked potato scooped out, seasoned with cream, salt and butter and then returned to the shell, cool milk with a tiny fall of grated nutmeg on top, well-boiled rice, cream soups, toast moistened with tomato juice for a change, grape juice, gruel and wild birds and animals from the woods. She knows the plump quail and saucy squirrel could not be bought for love nor money in the city markets, and that strictly fresh eggs and milk cost a great deal.

Have a little list of easily prepared dishes convenient, and when there is sickness in the house it will be handy to refer to it. Prepare something appetizing and dainty without telling your patient, and ten to one he will gratefully swallow it and boast about your ability as a nurse when he gets well.

[TO BE CONCLUDED NEXT ISSUE]

## Hat-Pin Holder

One of the most useful and almost necessary little articles is a receptacle for hat pins. The holder illustrated is very simple and inexpensive. A glass test tube may be purchased at any drug store. Around this is wrapped narrow lace inserting, and the top is finished with narrow lace sewn in very full. To cover the edges of the inserting around the tube, wrap narrow satin ribbon of a dainty shade in the same direction as the inserting, keeping it the same distance apart all the way up the tube. Finish it at the bottom with a large bow of the ribbon, and at the top with two small bows and a long loop by which the holder may be hung conveniently.

This promises to fill a long-felt want in milady's boudoir accessories, as the hatpin seems to have the habit of mysteriously disappearing just at the time it is most needed.

## Workbag

A new workbag is made of beautiful yellow and white Dresden ribbon five inches wide. Cut five-inch-square cardboard and place between the ribbon one piece twelve inches long and the other thirty-eight inches long. Stitch around cardboard neatly, then gather and whip on the outside of short ends, the ribbon forming the bags; whip all together, which forms the square, leaving the bags on the outside for thread, scissors or anything you wish. Tie long ends of ribbon for carrying on arm.

**MOLASSES CAKE**—One half cupful of butter, one cupful of sugar, one half cupful of molasses, one cupful of milk, one and one half pints of flour, one and one half teaspoonfuls of baking powder, one egg; mix and bake in oven forty minutes.



WORKBAG

the girl never dreamed of using them. Usually she poured the horrible drink the first thing, and then loaded the tray with such food as the family was to eat before setting it before the disgusted patient. She was to leave her place in a few weeks to be married, and it was this fact that called the remark from her discouraged mistress.

Every cookbook and every woman's magazine gives sensible directions about preparing and serving meals for invalids, but it is like water on a duck's back to place the pages before some people. They think they know better than any authority, and proceed to serve the patient with whatever suits their fancy. The trained nurse inquires of the doctor just what the patient may be allowed to eat and what quantity, but that is all a foolish notion, in the opinion of the wise ones. If the patient wants milk, milk he gets, no matter what the doctor says to the contrary. If he recovers in spite of the foolishness of the amateur nurse, she is sure her superior knowledge saved his life and tells far and wide how little the doctor knows.

And the trained nurse never sits down on the patient's bed, a thing every sick person abhors, to begin a conversation something like this: "Now, don't you think you could eat something? I'll make some nice broth if you'll promise to drink a cup of it. Not broth? Well, then, how would you like some cream toast? Mrs. Smith says that's the very best thing a sick person can eat. You know you'll never get out of bed at this rate if you won't eat. It just makes me feel bad to think you won't eat a thing I get ready," and so on for fifteen or twenty minutes until the exhausted patient is ready to wish for death to relieve his sufferings instead of strength to help bear them. "You wouldn't take any broth from me, John," said a tearful wife to her weak husband when a trained nurse had to be called to save his life. "I made it exactly the same way and you wouldn't touch it." The sick man had gained enough strength from the nourishing broth to answer with some spirit, "Miss B— didn't torment the life out of me about the broth, Mary. She only brought it."

It is easy to keep soup stock in a cold place in the winter, and to heat up a very small quantity at a time to serve in a dainty cup or let the patient drink it from a glass. In summer beef extracts, known

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## The Tree-Top Fairy

ONE day, when Margie was six years old, her father and mother took her to a picnic. The red and yellow hammock was laid in the bottom of the carriage. When dinner was over, and the sun was growing warm and little eyes were growing sleepy and a little temper was growing cross, Margie's mamma led her away to a nice shady place at the edge of the wood, where the hammock was hung between two trees. Margie was glad to snuggle down in it. In two minutes she was fast asleep, dreaming she was a little bird and had gone to sleep on the branch of a tree and was swinging, swinging, swinging. Her mamma was swinging the hammock, but Margie thought it was the wind blowing through the trees.

Suddenly she woke up. Somebody was right above her head talking to her. She could not see who it was, but she could hear a shrill little voice calling, "Follow me, follow me, follow me."

"Who can it be?" thought Margie. "Follow me, follow me," piped the little voice again.

"It's a fairy," whispered Margie to herself, and her brown eyes grew bright with excitement. She knew all about fairies, and if there was one thing she longed for more than another it was to see a real fairy.

She peeped from the hammock. The people who had come to the picnic were sitting in the meadow beside the brook. There was nobody near but her mamma, who was sitting at the foot of a great tree sound asleep, with a parasol over her head to keep off the sun.

"I know what I'll do," thought Margie; "I'll creep away for a few minutes into the wood. I've never been in a real live wood all alone, and I want to go terribly. I'll see what that fairy up in the tree wants me to do."

"Follow me, follow me," cried the voice again.

Margie crawled out of the hammock very softly.

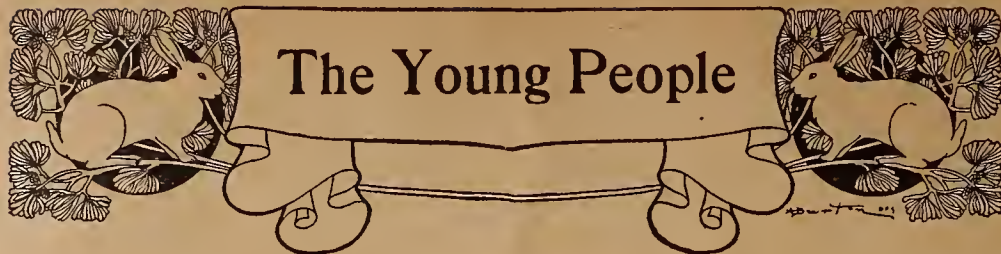
"I'm coming," she called, "just as quick as I can."

"Follow me." The shrill voice had gone away into the greenwood, and Margie ran as fast as her short legs would carry her.

"Follow me, follow me, follow me."

It was not easy to run in the woods. There were low trees and lots of scratchy bushes, which seemed to hold her back when she was hurrying as fast as she could. She was running down a long hill, and the woods were growing greener and thicker, so that in places the sunshine could not get through, and it was almost dark. There were tall pines overhead. Suddenly the ground grew smooth and slippery. Half a dozen times Margie slipped and fell, but she got up laughing and ran on, for the shrill voice in the tree tops was still calling, "Follow me." The fairy guide was moving so fast that the little girl could scarcely keep up with it.

At last the pine woods ended, there were trees of a different sort, and Margie found herself in a more beautiful place



## The Young People

it. She wondered when it would stop. It made a tremendous noise in the quiet woods when one considered it was nothing but a little brook. Presently Margie got up to see what became of it. She followed it for a long way. It was a sociable, jolly little brook. It sang and laughed and took funny little jumps, sometimes disappearing altogether, only to come hurrying out under a green bank jabbering as if it was lost. The most beautiful flowers grew on the banks. There were blue flags, starry forget-me-nots and red lilies. Sometimes the little brook stopped for a mo-

as she told the tree-top fairy, "very, very mis'able."

"Can't you go quicker?" she pleaded.

The fairy had stopped in the top of one tall tree. It was still calling, "Follow me, follow me."

"I can't follow you," sobbed Margie, "if you don't move."

Then she stubbed her foot against a log, and fell with a shriek of pain. She could not walk. Her ankle hurt her terribly, and she was crying as if her heart would break. The wood was cold, and it was growing very dark, for the red light had



From Original Photographure, Size 7x9 inches. Copyright, 1905, by The Ben Austrian Art Pub. Company, Reading, Pa.

## THE OLD BREAD BASKET

ment to spread out into a still lake, where hundreds of tiny minnows were darting about. Sometimes it grew so narrow that Margie could jump across it. Then there was another waterfall, with long draperies of ferns and green vines, and there Margie stopped to rest. The branches had scratched her hands and face. She was beginning to get tired of the wood.

"I think I'll go back to my mamma," she said.

Suddenly she heard the fairy in the tree tops again. It was calling, "Follow me, follow me, follow me."

died out of the sky. There were other tree-top fairies all about Margie. She could not see any of them, but she heard them chattering overhead. Sometimes she understood something they said. One was crying "Baby," and another said, very distinctly, "Go to bed."

"I can't," said Margie, through her tears.

"I haven't any bed. Oh, mamma, why don't you come and take me home!"

The little girl crouched at the foot of the tree, and soon it grew quite dark. She was afraid. It was so different from being in her cozy little crib, with mamma to

a fretful tone, "Follow me, follow me."

"Margie! Margie!"

It was her father's voice, and the little girl's eager cry went echoing through the woods. "Oh, papa, come for me here!"

Then she heard the trample of horses' feet and saw lights that bobbed about among the trees. Presently Margie was in her father's arms, with his cheek against hers and his kisses on her lips.

Margie is a big girl to-day, nearly ready to leave the primary school. Once I asked her if she ever had an adventure, and she told me of that ride through the darkness tucked close in her father's arms, when old Dolly went cantering home with a cheerful neigh once in awhile that said "We've found her."

Margie does not believe any more in tree-top fairies. That morning, in the gray dawn, when her mother tucked her cozily in her own little crib, she told the story of the fairy who called "Follow me."

"I don't believe it was a fairy, dear," said the mother, gravely. "A fairy would not have done such a thing. It must have been a wicked little bird."—J. G. Curtis.

## Half an Apple

One cold winter morning, about thirty years ago, a number of girls and boys were gathered around the stove in a schoolroom. They talked and laughed among themselves, paying little heed to a new scholar who stood apart from the rest.

The little girl had never been to school before, and she began to feel shy and homesick. She wished she could run home to mother and have a good cry in her loving arms. One little teardrop trembled in her eye, and seemed ready to fall; but it never did, for just then something happened.

Suddenly the outer door flew open, and a bright-eyed, rosy-cheeked girl rushed in. She brought plenty of the clear, frosty air with her, and she imparted a cheer to the schoolroom that it had not had before. She walked up to the stove quite as if she were at home, and after saying good-morning to everybody, her eyes fell upon the new scholar.

"Good-morning!" she said, sweetly, across the stovepipe.

The little girl on the other side brightened up at once, though she answered somewhat timidly.

"Cold, is it not?" the newcomer went on, pulling off her mittens and holding her red hands over the stove. Then she sent one of the plump hands down to the depths of her pocket, and when it came out it held a fine red apple. With her strong fingers she split it in two, and with a smile, she passed half of it to the new scholar.

"Do you like apples?" she said.

The little girl did like apples very much, and she thought none had ever tasted half so nice as this—it was so juicy and crisp and tart.

"My name is Libby," said the owner of the bright eyes; "what is yours?"

"My name is Hetty," replied the other little girl.

"Well," said Libby, "do you want to sit



THE LITTLE ANIMAL THAT BRINGS JOY AND HAPPINESS INTO THE LIVES OF THE SMALL BOY AND GIRL AT EASTER TIME

than she had ever dreamed of. She stopped and looked up into the tree tops; she could hardly see the sky, the branches were so thick.

"Do you want me to go any farther?" she asked.

There was no answer.

"I want to go down there," she pleaded, "and watch the water go over the rocks. May I?"

The fairy did not speak.

"Won't you come down and play with me?" begged Margie.

There was no answer.

"If you don't want me to follow you any farther I'll stay here for a little while."

Margie had discovered a waterfall. She did not know what to call it, for she had never heard of a waterfall before. The water was hurrying over the rocks with a noisy clatter. Margie sat down to watch

"All right," cried Margie, "only I'm tired. Don't go too fast."

"Follow me, follow me." It seemed to be going still deeper into the wood.

"Is this the right way?" she asked, anxiously. "It looks different."

"Follow me, follow me," cried the tree-top fairy.

"You're tiresome; you might say something else once in a while," cried Margie. She was so tired she was growing cross.

"Follow me, follow me."

She plodded down another long, slippery hill into the very heart of more pine woods. The sky was growing red. It glowed behind the pine trees as if the world was on fire. That made Margie feel afraid. She knew that meant it was nearly night. It grew red like that after supper when she went with Dan for the cows. She was hungry and tired out, and,

tuck her in and kiss her when she whispered "Good-night." At last she fell asleep, with a tear-stained face, against the trunk of the tree.

She had been asleep for a long time, when she wakened suddenly. She fancied she heard somebody calling her name. It was not the tree-top fairies this time. She listened. It was still dark, but away off in the very heart of the woods she heard a voice shouting, "Margie! Margie!"

"I'm here!" screamed the little girl. "I'm here!"

Margie's voice sounded very weeny-teeny in the great big woods, but it wakened all the fairies in the tree tops, and they were scolding angrily because they had been disturbed. There were whole households of them saying all sorts of cross things, and the tree-top fairy Margie knew best was wide awake, screaming in

with me? There is a vacant seat beside mine, and I know the teacher will let you."

Hetty thought she would like that plan very much, so the two little girls went off to find Libby's seat, where they chatted happily till the bell rang.

"Where is Hetty Rowe?" asked the teacher; and then, before anybody had time to answer, she espied her seated next to merry-faced Libby. The teacher smiled, saying, "I see you are in good hands," and Hetty was allowed to keep the seat.

When Libby had grown to be a woman, she told me this story herself, and she used to say that it was the gift of half an apple that won for her so dear a friend as Hetty Rowe.

But I think that something besides the apple comforted that little heart on that cold morning. Do you not think so?—Our Dumb Animals.



## How Long a Man May Live

WRITING in the "Sunday Magazine," George Bancroft Griffin says that more women reach old age than men, but more men attain remarkable longevity than women. Horned animals live shorter lives than those without horns, fierce animals longer than timid, and amphibious animals longer than those which inhabit the air. The voracious pike exists, it is said, to an age of one hundred and fifty years; the turtle is good for one hundred years or more, and among birds the golden eagle is known to have lived for nearly two hundred years, while the sly and somber crow sometimes reaches the venerable age of a century.

Passing up the scale of life to man, and skipping the patriarchs, we find many recorded instances of longevity among the classic Greeks and Romans. Pliny notes that in the reign of the Emperor Vespasian in the year 76 there were one hundred and twenty-four men living in the limited area between the Apennines and the Po of one hundred years and upward, three of whom were one hundred and forty, and four over a hundred and forty. Cicero's wife lived to the age of one hundred and three, and the Roman actress Luceja played in public as late as her one hundred and twelfth year.

Coming down to more recent times, the most notable authentic instance of great age is that of Henry Jenkins, of Yorkshire, England, who died in 1670, one hundred and sixty-nine years old. He was a fisherman, and at the age of one hundred easily swam across rapid rivers.

Another historic case is that of Thomas Parr, of Shropshire, England, a day laborer, who lived to the age of one hundred and fifty-two years. When more than a hundred and twenty he married his second wife, and till a hundred and thirty he could swing the scythe and wield the flail with the best of his fellow laborers. In his hundred and fifty-second year Parr went to London to exhibit himself to the king. It proved to be an unlucky visit, for violating the abstemious habits of a century and a half the old man feasted so freely of the royal victuals that he soon died, merely of a plethora. On examination his internal organs proved to be in excellent condition, and there was no reason why he should not have lived much longer, except for his unfortunate taste of royal hospitality.

Prof. Luigi Dambon, of Rome, attempts to prove by statistics that northern latitudes and higher altitudes do not conduce to longevity. He says that the average Arab outlives the average Eskimo by no less than twenty-five years, and that the people who live on the unhealthy coasts of South America survive the inhabitants of the higher and cooler altitudes of the interior. The natives of India live to a surprising old age. In Europe people live longer in the south than in the north.

"What occupation tends to most prolong life?" asked a man recently of the chief mathematician for one of the large insurance companies.

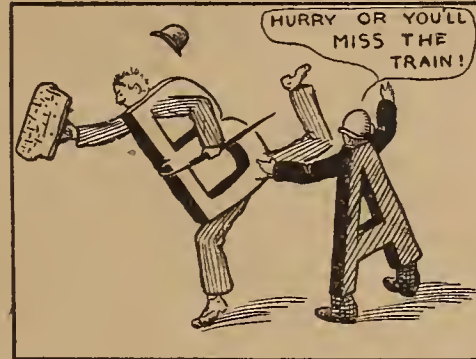
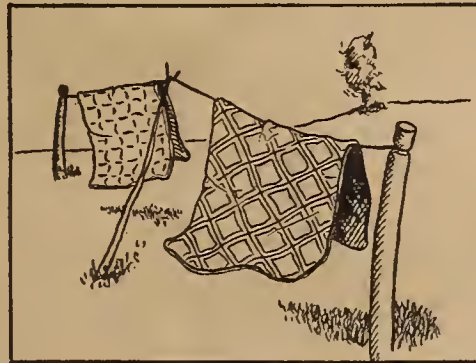
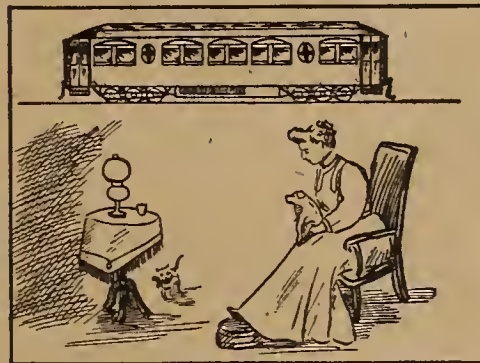
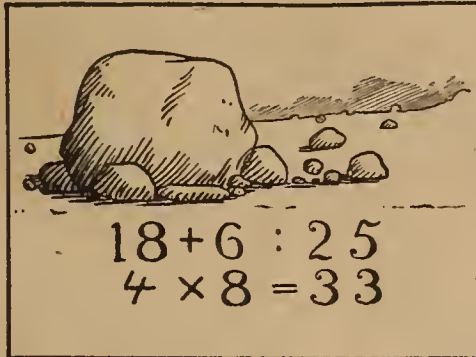
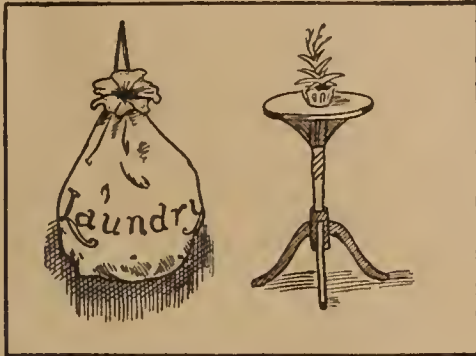
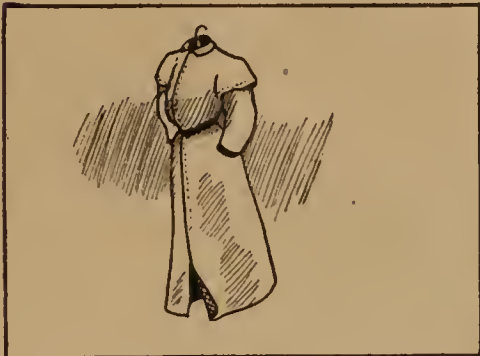
"That is a difficult question," he replied. "I can answer it only by referring to the occupations of persons whose lives are and have been insured by us. Inasmuch as they number several hundreds of thousands, they will afford a pretty good basis from which to draw conclusions on the subject. According to this evidence it appears that commercial travelers and agents live longer than men in any other kind of business, notwithstanding the hazards which attend transportation by rail and water. Next to them come dentists, teachers and professors, including music teachers."

Sir James Sawyer, a noted physician of Birmingham, England, has been talking recently to an audience in that town on longevity. Its secret, he thinks, lies in keeping the following commandments:

- Eight hours' sleep.
- Sleep on your right side.
- Keep your bedroom window open all night.
- Have a mat at your bedroom door.
- Do not have your bedstead against the wall.
- No cold tub in the morning; but a bath at the temperature of the body.
- Exercise before breakfast.
- Eat little meat, and see that it is well cooked.
- For adults: Drink no milk.
- Eat plenty of fat, to feed the cells which destroy disease germs.
- Avoid intoxicants, which destroy those cells.
- Daily exercise in the open air.
- Allow no pet animals in your living-rooms; they are likely to carry about disease germs.
- Live in the country if you can.
- Watch the three D's: drinking water, damp and drains.
- Have change of occupation.
- Take frequent and short holidays.
- Limit your ambition.
- Keep your temper.

## The Puzzler

The Eight Pictures Below Suggest as Many Different Things Common to Bedrooms. Take a Look at the Pictures and then About Your Bedroom and See if You Can Solve the Puzzle. Answers will be Published in the May 1st Issue



Answers to Puzzle in the April 1st Issue: "Toothpicks," Arkansas; "Knickerbocker," New York; "Granite Boys," New Hampshire; "Leatherheads," Pennsylvania; "Tadpoles," Mississippi; "Bugeaters," Nebraska

## Farmers Dynamite Tollgate

A dispatch from Indianapolis recently told that because the county commissioners of Washington County refused to purchase the gravel road leading through Hardinsburg and Fredericksburg, Washington County, after the people had voted it free, farmers appeared at the two tollhouses about two o'clock in the morning and utterly destroyed them by exploding dynamite under them.

The tollgate keepers and their families were first ordered to vacate and then the farmers, of whom there were twenty-five or thirty at each place, assisted in removing the furniture, which was placed at a safe distance. Ten pounds of dynamite was then exploded under each house.

## How Alaska Natives Hunt Bears

"Bear hunting as pursued by the Alaska native is an interesting game," remarked J. P. Gardiner, a Nome miner, to a representative of the San Francisco "Chronicle."

"I witnessed a bear hunt on Kadiac Island a few months ago. A big brown bear, one of the species familiarly known on Kadiac Island and the other Aleutian islands, was pestering the settlement, and a native who bore a wide reputation for prowess among his people decided to go after the animal. Before starting on the expedition, however, he went to his mother and obtained her permission. His mother was the oldest woman of the tribe, and without her consent he wouldn't have stirred an inch. She gave her consent, so the native hunter, armed only with a knife, started out. Three more of us, with rifles, accompanied him. We agreed among us to allow the native to have the first chance at the bear and to shoot only if he failed to kill the beast.

"We came upon the bear in a ravine. The native crouched on the ground as the

bear came up. We became quite excited. It was to be a hand-to-hand battle, and we feared the native would get the worst of it. As the bear approached the native it reared on its hind legs. We had our guns ready for instant action. But the guns were not needed. Quick as a flash the native sprang up and had his knife plunged into the animal's heart and was away several steps before the bear knew what had happened. It was a death blow, and we packed the pelt back to Karluk in triumph."

## The Wild Game in Japan and How it is Hunted

A writer on the game of Japan says the bears of the land are unique from the point of view of the enormous size, strength and fierceness of one species as from the diminutiveness of another. The first is a great carnivorous brute, a sort of grizzly, who makes nothing of killing and carrying of a fourteen-hand pony. Next to him comes a black beast very much like the sloth bear of India, and last of all a diminutive little brute scarce larger than a good-sized spaniel, exceedingly shy and seldom seen.

The wolves of Japan are scarce, cowardly and of little account, and found now only in the extreme northern parts of the empire. The stag is about the size of, and in make and shape and habits, too, like the fallow deer of England and Scotland.

The wild pig of Japan appears to be a domestic pig run wild; the writer recently saw herds of Manchurian and Mongolian swine, great, black, hairy beasts, driven through the streets of Peking, of a far wilder and fiercer breed than any wild pig he had come across in Japan. The boars there are, however, of a fair size, but never so tall on the legs nor with such fine tusks as the jungle shoat of India. To ride one of them down, as we do his

brother in India, would be an impossibility, for, as it would be in the case of hunting, so, too, in this sport, the nature of the country would be all against anyone attempting to do so.

Hunting is absolutely non-existent in the land of the mikado. Foxes, deer and hares are plentiful enough, but Japan's natural features and the methods of agriculture followed by its farming classes are all, and most uncompromisingly, too, against it.

Of candidates for the rifle Japan possesses quite a respectable number, among them being three species of bears, the wolf, a species of stag, another of antelope, and, if it is permissible for an old Anglo-Indian to place him in the same category, the wild boar. All are, however, scarce, and getting scarcer yearly, and it certainly would not pay anyone to make extensive preparations for going in search of any of them, for although the Aino, that extremely hairy aboriginal of Japan, hunts them all most assiduously, he will render no assistance to a stranger to do likewise.

And then again, the slightest deviation by a foreigner off the beaten tracks of foreign travel in Japan is more likely than not to lead to unpleasantness for him, for suspicion of foreigners and their motives is one of the leading and worst traits in the Japanese character. Not being sportsmen or travelers in the same sense and from the same motives as the English-speaking people are, they cannot understand why anyone should spend his time in pursuit of objects which—to them, at least—bring no tangible results. To travel they have no objection, but only do so to see places of interest and with some very definite object in view, such as for the spying out of a foreign land or for the gaining of knowledge.—Post-Dispatch.

## Freaky Hobbies of Rich Cranks

On the above subject the St. Louis "Post-Dispatch" says that in Vienna, Austria, there is living Count K., a wealthy nobleman of Polish origin, who occupies a sumptuously furnished flat in the most fashionable part of the city. When he wants his servants he summons them by bugle calls, much to the annoyance of his neighbors. His favorite pastime is to hire an omnibus and, dressed like an ordinary driver, to drive his cumbrous vehicle wherever aristocratic equipages are thickest. He spends a fortune every year on the costliest of clothes, yet never wears any but the suits discarded by his valet; appears in the ballroom decked from head to heel in virgin white, with the exception of a black shirt and tie, and when he dines—always at one of the most exclusive of restaurants.

It is but a short time since there died at Como a rich old man who was noted for a very strange eccentricity. Although for years he had never been outside his grounds, he would proudly inform his visitors that he had that very day walked to certain villages in the neighborhood. What he actually did was this: Whenever he made up his mind to visit a distant village or town he made an estimate of the distance and covered it on foot on a carefully measured walking track in his grounds. When he wished to call on his friends in the district he would not only do it by proxy, but would conduct a conversation for hours by sending a servant to and fro with questions and answers.

A well-known Italian count who died recently at an advanced age had for many years defied the weather by drinking a solution of camphor, which he considered an efficient substitute for clothes. Summer and winter alike he would sleep without a particle of covering and with the windows of his room thrown wide open, and would walk for hours in his garden on a bitterly cold day in the garment most people devote to night wear.

Not long ago, too, there lived near Hastings a gentleman whose eccentricities very naturally excited considerable attention. Punctually at the stroke of noon each day he would appear in his front garden with a gayly colored turban on his head, his feet shod with richly embroidered and jeweled sandals and with a coolie cloth 'round his waist; and, quite indifferent to the amusement he was providing for a crowd of spectators, would first pray aloud to the sun, "the father of light and good," and then prostrate himself before a quaint miniature temple in which was enshrined a grotesque idol with diamond eyes.

There is at Cape Breton a worthy and much-married gentleman who has just taken his eighth wife to his heart and home. And a groomsman home it must be to greet a home-coming wife, for seven of its rooms, each painted in black and white and liberally garnished with skulls and crossbones, are dedicated to wives numbers one to seven. As the birthday of each of these departed spouses comes around the by-no-means-disconsolate husband entertains his friends at dinner in the room especially devoted to her memory, and improves the occasion by telling anecdotes to illustrate her many virtues.



# Practical Fashions for Every Day



Boy's Sailor Suit

Every small boy likes to wear a sailor suit. This design will not only please the young wearer, but his mother, as well, because it is so easy to make. Irish linen suiting, madras, cotton cheviot or light-weight serge or flannel are all desirable materials for this suit.

No. 720—Boy's Sailor Suit

Pattern cut for 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, four yards of twenty-seven-inch material, or two and three fourths yards of thirty-six-inch material, with seven eighths of a yard of material for collar and shield



Box-Plaited Coat

This long coat for a small girl would look well in white or any pale shade of piqué, and also in Rajah silk. The coat is made with two box plaits back and front, and fastens in double-breasted style. Groups of buttons and an embroidered emblem are used for the trimming.



No. 727—Box-Plaited Coat

Pattern cut for 4, 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, five yards of twenty-two-inch material, or two and three fourths yards of thirty-six-inch material



No. 722—Tucked Shirt Waist

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-two-inch material, or three yards of thirty-inch material

No. 723—Skirt with Tucked Panels

Pattern cut for 24, 26, 28 and 30 inch waist measures. Quantity of material required for medium size, or 26 inch waist, eight and one half yards of twenty-two-inch material, or six and one half yards of thirty-inch material

Smart Summer Frocks

Tucks are still to play an important part in the summer shirt-waist suits. The model here illustrated emphasizes the best points in the shirt-waist suits for summer days. The skirt is also an excellent design to use for a separate skirt. It is cut in five gores. Any of the rough-woven linen suitings would be stylish for this costume, or embroidered ponginette.

The other costume should be developed in any of the new sheer fabrics, such as flowered swiss, printed silk organdie, or chiffon de soie.

Every woman knows that the popularity of the shirt waist is an old, old story. The shirt-waist girl has now become a recognized type of femininity the whole year through. It is interesting at just this season of the year to know that more shirt waists will be worn during the spring and summer of 1906 than ever before.

The filmy lingerie shirt waists will be the height of fashion, and they are to be more blow-away of texture than ever. The materials used for them will be the sheerest, and they will be elaborately trimmed with hand embroidery and exquisite lace insets. Almost every other one of the lingerie waists will be made with elbow sleeves, and invariably they will button in the back. Much fine tucking will also be a feature of their fashioning, and perhaps every woman doesn't know that she will get much better results when she is tucking any of the fine materials like silk mull, nainsook or batiste, if she puts a piece of paper under the material before starting to stitch the tucks. This will avoid the filmy fabric pulling out of shape.

Fine tucks in clusters will be much used in the spring lingerie waists. They will often be arranged to simulate a yoke, and many times the waist

No. 724—Waist with Adjustable Plastron

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one half yards of twenty-two-inch material, or three and one half yards of thirty-inch material, with three eighths of a yard of lace for chemisette and collar

No. 725—Five-Gored Gathered Skirt

Pattern cut for 22, 24, 26 and 28 inch waist measures. Quantity of material required for medium size, or 26 inch waist, ten yards of twenty-two-inch material, or eight yards of thirty-inch material, with four yards of insertion two and one half inches wide for trimming

## PATTERNS

To assist our readers and to simplify the art of dressmaking, we will furnish patterns of any of the designs illustrated on this page for ten cents each. Send money to Farm and Fireside, Springfield, Ohio, and be sure to mention the number and size of pattern desired.

Our new spring and summer catalogue of fashionable patterns is now ready and will be sent free to any address upon request.

will have no other trimming save the tucking.

As the lingerie waists are to be sheerer than ever, so the tailor-made waists are to be plainer than ever. And both styles will be worn by the spring and summer shirt-waist girl.

For the tailor-made waists the heavier cotton materials will be used. About the only difference in the cotton cheviots, percales and madras is that they are showing more artistic designs and that they have a more silky finish than other years. The plain shirt waists of the tailor-made order open in front, and they are made invariably either with a full sleeve and a deep buttoned cuff, or a perfectly plain shirt-waist sleeve.

The girl who wishes to have her shirt waists distinctive should bear in mind that a simple way to accomplish this is to give special attention to the trimming. In fact, the way a shirt waist is trimmed has much to do with whether it is becoming or not.

An excellent pattern for a tailor-made waist is shown in box-plaited model No. 697.

No. 721—Square-Yoke Nightgown

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one half yards of thirty-six-inch material, with one half yard of inserted tucking for the yoke, and one and one half yards of edging for neck and sleeves



No. 728—Plain Low-Neck Nightgown

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, five yards of thirty-six-inch material, with one yard of edging to finish the neck



No. 695—Tucked Shirt Waist

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one half yards of twenty-two-inch material, or three and one half yards of thirty-six-inch material

No. 726—Shirt Waist with Yoke

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-seven-inch material, or three yards of thirty-six-inch material



No. 697—Box-Plaited Tailor-Made Waist

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and three fourths yards of twenty-two-inch material, or three and three fourths yards of thirty-inch material





## Sunday Reading

### Easter Dawn

Why is the air so filled with holy sweetness?

The gates of Heaven seem gently swung apart.

What perfect peace, what infinite completeness,

Has laid her quiet hand on Nature's heart?

Oh, wondrous morn! Oh, life in bud and blossom!

Oh, Earth and Heaven attuned in sweet accord!

Kneeleth the waiting world, with thankful bosom,

Flushed pure with prayer before her risen Lord.

—Margaret Houston.

### Palms of Victory

BY GEORGE DALLAS MOSGROVE

THE palm leaf, bound with myrtle on the right and citron on the left, formed the triple badge of the desert, carried by the Jews, and shaken at the Feast of the Tabernacles. These were the "palm branches" fetched out and carried by the multitude that went out to escort Jesus on the occasion of his triumphal entry into Jerusalem. St. John says:

"On the next day much people that were come to the feast, when they heard that Jesus was coming to Jerusalem, took branches of palm trees and went forth to meet him and cried, Hosanna: Blessed is the King of Israel that cometh in the name of the Lord."

The procession accompanying Jesus from Bethany, going to Jerusalem, cut down branches of olive trees. According to Matthew, "A very great multitude spread their garments in the way; others cut down branches from the trees and strewed them in the way."

The palm leaf grew luxuriantly in the Jericho plain and in many places along the Jordan, being characteristic of sandy, semitropical deserts, growing best on clay or rich alluvium. It is improbable that there were any palms on Mount Olivet, the soil not being suitable; hence the procession from Bethany cut olive branches. The tall stem of the olive, surmounted by a feathery foliage, was the symbol of grace and elegance.

From Palm Sunday the scene changes, and we come to

### THE PASSION IN THE GARDEN

'Tis midnight; and on Olive's brow

The star is dimmed that lately shone:

'Tis midnight; in the garden now,

The suffering Savior prays alone.

'Tis midnight; and from all removed,

The Savior wrestles 'lone with fears;

E'en that disciple whom he loved

Heeds not his Master's grief and tears.

The other events of Passion Week follow in quick succession—the betrayal, the trial, the crucifixion and the burial. And then follows the climax of Gospel truth—the resurrection, the aureola of the conquering King of Kings.

### EASTER

Just one week after Palm Sunday we

celebrate Easter, in commemoration of the fact that the Lord is risen; that

Captivity is captive led,  
For Jesus liveth who was dead.

A cross, made of immortelles, flowers and evergreens, is a mutely eloquent, impressive and comprehensive sermon. The flowers that die in the autumn bloom again when the springtime comes, reminding us of Christ's declaration: "He that believeth in me, though he were dead, yet shall he live."

More than anything else the flowers, Nature's decorations, testify that God loves the beautiful. He made them—sweetly fragrant and refining in influence: "Behold the lilies of the field; they toil not, neither do they spin; and yet Solomon in all his glory was not arrayed like one of these." Then,

Bring lilies, sweetest flowers,  
The altar to adorn;  
We'll greet the glad some hours—  
The coming Easter morn,

remembering that in the sweet by-and-by we may bear palms of victory, and sing the triumphal song "over there."

### The Soul that Comprehends

Give me the soul that comprehends,  
That understands, that knows;  
That sees God's hand and feels His ends  
In every flower that blows;  
That grasps the world with steadiness  
And wrestles for the truth;  
That can forgive with readiness;  
That never stands aloof;  
That feels itself a part of life,  
In sympathy with all;  
That glories in man's earnest strife—  
That sorrows if he fall;  
That dares to say and dares to do  
And dares to speak its love;  
That boldly lives a light straight through  
And fears but God above.

—A. Cressy Morrison.

Carlyle once received a letter from a young man, saying, "Mr. Carlyle, I wish to be a teacher; I wish you would tell me the secret of successful teaching." Carlyle wrote back: "Young man, be that which you would have your pupils be. All other teaching is unblessed mockery and apery."

### The Salt of Life

BY ALBERT E. VASSAR

Just only a beam of sunshine,  
But, oh, the light it gives!  
Only a smile of the loving,  
But in the soul it lives.  
Just only a kind word spoken,  
The heart begins to throb;  
And only a kind entreaty  
Would help lead souls to God.

The talent of success is nothing more than doing what you can well, and doing well whatever you do, without a thought of fame.—Longfellow



### The ONE Roof that is TIME-Proof

The Carey Roof cannot catch fire from falling sparks, blow off, rust, rot, melt or develop leaks. It defies the elements. Once on, your roofing troubles end. Lasts as long as the roof-boards hold.

## CAREY'S MAGNESIA FLEXIBLE CEMENT ROOFING

is the oldest and best composition roofing for NEW buildings. You or your farm hand may easily apply it over your LEAKY shingle or hole-pierced metal roof.

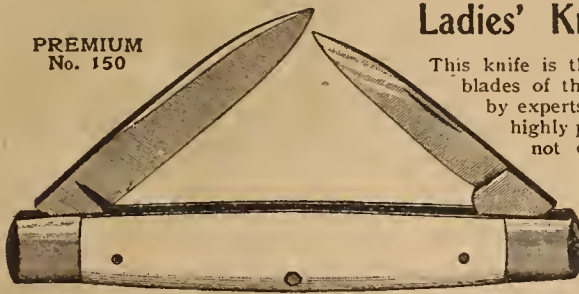
"I have covered old shingles with it, making a perfect roof"—J. R. JUNGBLUTH, Arlington Farm, Neb.

Carey's Roofing is composed of an always flexible asphalt body of cement, with a heavy woolen felt foundation and strong burlap, firmly imbedded into the upper surface—all compressed into compact and practically indestructible sheets. The Carey Patent Lap protects from sun-rays and rust, the nails driven in to stay, insuring a permanent, waterproof, smooth union.

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No. 150



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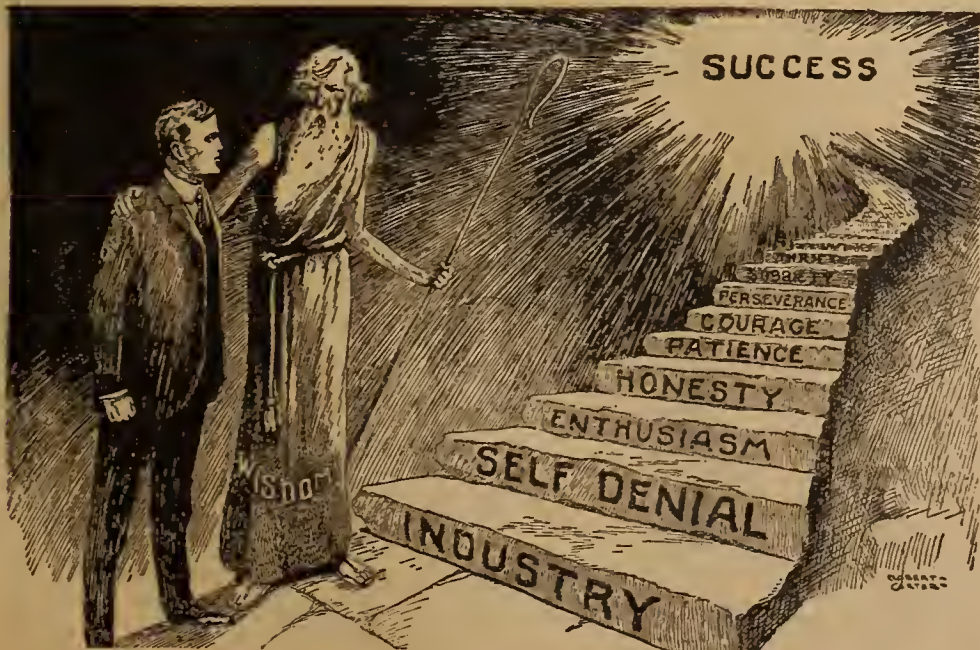
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Chicago American

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### The Stockman's Worst Enemy

**M**R. HENRY WILLIS, one of our esteemed subscribers from Montana, sends us a picture of the stockman's worst enemy, the gray wolf.

These "nine of a kind," pups, were found in one den. The state of Montana pays a bounty of three dollars for grown gray wolves. Having been hunted, trapped and poisoned for the last decade and a half, the wolf has become wise in his generation, and instinctively knows when a trap is set or a bait is poisoned, so that about the only way to keep the pest in check is for everyone to turn out when a snowfall comes or there is a muddy spell, when the track of the old mother wolf can be traced to her den and the pups destroyed. It often happens that the old one is at home, and in that case there is always "something doing" before the pups are destroyed or taken. One is not much surprised to learn that the losses to stockmen from this source alone runs up into the hundreds of thousands of dollars when one considers that each she wolf will raise annually from five to eleven young.

### Teaching the Deaf Mutes

When a deaf mute child is received at the Wisconsin School for the Deaf, a record of all of the sounds that he is able to utter is made by having him sound them into a phonograph.

The work of training him how to talk then commences, and as he progresses, other records are made. He is taught to say the words and sentences written on the blackboard, and others. After a period in school, the progress from the first day is shown by the records that the machine has made. A visitor is at once struck with what he hears, for all of the tests have been made on the same cylinder. When the record is put on and started, it repeats the gutturals that the child first uttered when he came to the school. Then it calls out a sentence that the pupil tried to say after a period had elapsed. The same sentence is repeated more clearly, and again and again it is sounded out of the big horn until it is as distinct as a person having the full sense of speech is able to utter it. Then the child himself is called and one sees a living example of what kindness and patience and ability of a teacher is able to accomplish for the unfortunate.

J. L. GRAFF.

### Oddest Jail in the Country

At Clifton, Graham County, Ariz., are a number of unwilling troglodytes who are kept within their rocky home by officers of the law. Clifton is one of the centers of copper mining in Arizona. In one sense it may be inferred that the queer jail has its advantages, for the temperature of that part of Arizona frequently rises in summer as high as one hundred and twenty degrees in the shade. But to revert to the jail itself.

It comprises four large apartments, hewn in the side of a hill of solid quartz rock. The entrance to the jail is through a box-like vestibule, built of heavy masonry, and equipped with three sets of gates of steel bars.

Here and there, in the rocky walls, holes have been blasted for windows, and in these apertures a series of massive bars of steel have been fitted firmly in the rock.

The floor of the rock-bound jail is of cement, and the prisoners are confined wholly in the larger apartments. In some places the wall of quartz about the jail is fifteen feet thick.

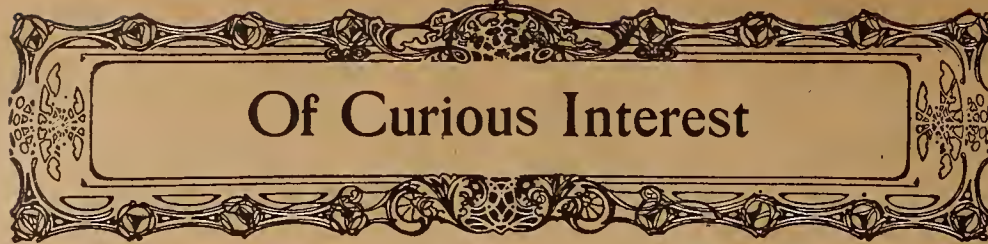
Some of the most desperate criminals on the Southwest border have been confined in the Clifton jail, and so solid and heavy are the barriers to escape that no one there has ever attempted a break for freedom. The notorious "Black Jack" was there for months.

### A Long-Distance Concert

Some time ago the writer participated in a musical performance given by two players separated by many miles, with the audience located at yet a third distant point. The writer, provided with a head receiver connected to the telephone circuit and standing before a large horn attached to the transmitter, played on a French horn for the benefit of listeners in the office of the "Spokesman-Review," at Spokane, Wash., 726 miles from Salt Lake City, in which place he was located.

The remarkable feature of the performance was that the piano accompaniment was played by a music dealer named Reeves at his store in Helena, Mont., 525 miles away. A transmitter, equipped with a megaphone, was mounted on top of the piano, and this player also wore a head receiver.

In playing the Miserere from "Il Trovatore," for instance, your correspondent waiting in Salt Lake City could hear Mr.



## Of Curious Interest

Reeves play the introduction, and then being well acquainted with the score, knew just when to begin with the melody. Then at the close of the strain, he would listen until the intermezzo had been played on the piano up at Helena, and then begin again. There was not the slightest jar between horn and piano during the entire program, and people listening along the line thought both instruments were being



GRAY WOLVES—WORST ENEMY OF THE STOCKMAN

played in the same room. Your correspondent serenaded the adjutant's office at Fort D. A. Russell and the offices of the Cheyenne newspaper 500 miles distant, and one night was got up out of bed at eleven o'clock to serenade numerous central offices of the company scattered through the southern part of Utah. General Manager Murry was much interested in these experiments, and afforded every facility for their conduct. When satisfactory connections are made with the Pacific Coast an effort will be made to serenade the newspaper offices of several coast cities from Salt Lake. It is believed that the experiment could be carried on with success with Omaha, and even points east of that city.

An attempt was made by the telephone engineers to locate transmitters in front of the great organ in the Salt Lake Tabernacle, and reproduce organ recitals at points along the system, but the Mormon Church authorities were not favorable to this, and the experiments were cut short before they had been perfected.—American Telephone Journal.

### Big Check on Pine Shingle

Many different substances have been used to send communications through the mails, from bits of carved wood to leather post cards. But banks are supposed to be more insistent upon red tape. A stamp and an address will satisfy the postal authorities; ink, paper and indubitable signature—these are requisites in bank paper. Yet in new countries it is frequently obliged to put up with makeshifts. Here is a story of early banking in California, as related by the San Francisco "Bulletin."

Joseph C. Palmer, a California pioneer, and at one time a banker and politician in the early days of California, was a member of the firm of Palmer, Cook & Co., a bank which did an immense business, and whose influence was felt throughout the state.

To show his readiness to adopt original methods in emergency, it is related that once a depositor called to draw a large sum of money (\$28,000) from the bank. Mr. Palmer's consent was necessary, but he had been called away to attend to some duty in a lumber yard a mile or more from the bank.

Thither the depositor hastened and made known his wants and the necessity of having them attended to at once. Mr. Palmer could find neither pen, pencil, ink or paper. But without a moment's hesitation he picked up a shingle, borrowed a piece of red chalk, and with it wrote a check on the shingle in large and distinct letters for \$28,000.

This was good when presented for all the money the depositor had in bank.

### Bird Shoots a Man

The story is told of a hunter in a South American country who had shot at a large bird something like our turkey, and wounded it in the wing. The bird no sooner dropped upon the ground, however, than it was up on its feet and running away. The man threw his gun aside, so that it might not hinder him in the chase to follow, and started in pursuit of the bird. An exciting chase ensued, the man and the bird doubling on themselves many times.

At last the poor bird, weary from loss of blood and its herculean efforts to escape, came around again to the spot where the gun lay. Its muzzle was pointing directly at the man behind the bird, and the latter struck its foot against the trigger. Immediately the man fell to the earth, shot through the leg, and the bird escaped.

### Horse Pistol of 1818

In the Free Library at Newark, N. J., is to be seen one of the most interesting collections of military weapons to be seen anywhere in this country.

The New York "Sun" says that among the rare weapons to be shown is a lever crossbow gun of the fifteenth century. Another is a Sharp's carbine with a coffee mill in the stock, a third is a flint-

lock horse pistol made in Springfield in 1818 by the government.

It is said that only three pistols of this type are in existence. The issue was five hundred pistols in a time of peace. They were used in fighting Indians on the frontier and in the first Seminole war.

This pistol is eighteen inches long, is iron mounted throughout and carries an ounce round ball. It weighs nearly five pounds and was almost as formidable as a bludgeon as a firearm. The original hickory ramrod is in place.

On the inside of the lockplate is the name "S. Dale," who was probably the maker of the lock. Both lock and barrel are dated, and the former bears the United States stamp under a spread eagle.

The proof marks on the left of the breech are a V and P ("Viewed" and "Proved"), with an eagle head between the letters.

The S. North horse pistols, which are highly valued by collectors, were made in the Springfield armory the same year. North had moved down from Middletown



to enter upon a contract with the government. His pistols have his name on the lockplate.

This is not a North pistol, but is said to be much rarer. It is much larger than the North type and has no brass about it.

### Tradition Shattered

Navy Department traditions at Washington have been shattered by Secretary of the Navy Bonaparte. It had always been held inadvisable to promote women clerks above the grade of \$1,200 a year. It became necessary not long ago to promote a clerk to \$1,300 and the records showed that a Miss Thomas stood highest in the matter of efficiency. Owing to precedent, however, a man was given the place, but as soon as the secretary learned of this he promptly ousted the man and gave Miss Thomas the promotion.



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### One Comfort Left

The retired merchant was looking over his old ledger.

"What satisfaction does that afford you?" asked the caller.

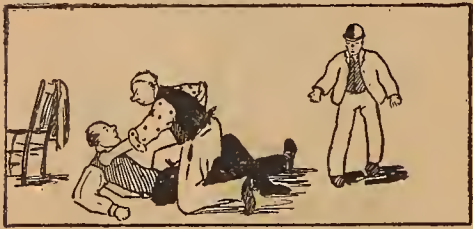
"A heap," he answered. "When somebody calls me an old skinflint and a miser it does me good to look at the unpaid accounts of my forty years in business and reflect that I've given away in my time, without counting interest, \$27,491.36."—Chicago Tribune.

### Could Not Trust Him

After a wordy argument in which neither scored, two Irishmen decided to fight it out. It was agreed, says the Washington "Post," that when either said "I've enough" the fight should cease.

After they had been at it about ten minutes one of them fell, and immediately yelled, "Enough! I've enough!"

But his opponent kept on pounding him



until a man who was watching them said, "Why don't you let him up? He says he's got enough."

"I know he says so," said the victor, between punches, "but he's such a liar you can't believe a word he says."

### Bill Writes to Lib

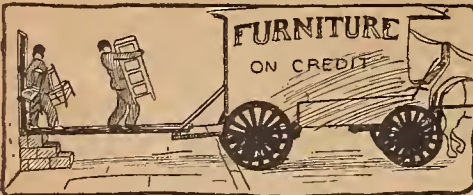
DEER MR. LIB, VIA FARM AND FIRESIDE:

In anser too yure Valubel inkwiry wil say that I canot cum too see yure farm, havin plenty ov Biznes too do at my one Home. in Regard too the tom Cat wich is not by any Meens spelt with a k, I wood say like hunderds ov uther Intelijent farmers, thet cats in Generl are not wurth there feed.

furst, tha dont kech enuf rats, wich is thare Only good ockupashun, to pay for thare meet an bred an secund, tha ketch an devower with out Pity hunderds an 1000 ov Helpless burds wich wood uther wize help the farmer wich is alwis the oner ov the cats. not wantin too take up too much space with anserin Kwesh-tuns an havin lost yure leter any how, wil Simply say thet if you hav any more kwesh-tuns so Importan an pursnel plees rite by leter direck an in close a Fe ov a doler & stamp, wich ofer is also Open too evry body elts.

but too begin with I hav a awful tale too tel. it all hapind sum time a go wich was the furst ov Aperl. now yu no as wcl as I do thet thet day is set a side for foolin peepul ole an yung, so I took it on my self too fool pa. wel, I cot our ole cat wich is cald Sope, havin bin furst found in a sope Box. Wel, not dreemin of doin any Harm exsept foolin pa, I put the cat in the Uven ov our stove wich was jest warm enuf too make the cat feel Contented, wich I dont dout soon fel a sleep.

wel, next A. m. wen pa went in the kichen, wich was the furst ov aperl, he bilt a rorin an thunderin hot fire in the stove, wich was a no. Seven an ov thet Variety cald a step stove. ma alwis has told pa sense she got it thet she wanted a nuther Kind, but pa he sed wate at leest til this wun wares out cause pa nose munny is hard too git. so wen it got kind ov warm I supose the Tom got up an kind ov strecht, til finely it got so hot it kind ov burnt his back, a bout at this point ov painfulness the tom, feelin purty bad, growled kind ov low an long shapte too tel the publik too open the dore. but pa



"'Tis better to have loved and lost than to have married and bought furniture on the installment plan."—Kansas City Times.

didnt no wot was the matter an lookin wite roun the mustash place sed Marier wot is thet I bet its a Goste an he got so wite an fritend he carrid his frate out ov the dore like a litenin ex press an holerd run for yure lives ov yule get kild. so ma gitin fritend at pa grabd mc by the hare an folerd in pas Wicked tracks. the ground had jest bin ploud an wen we went back yu cood see Fragments ov my harc all a long the way, wich I was glad coodent be puld out ov my hed no more, cause its awful paneful too looze hare. so wen we got back pa sed I smel sumthin, an ma sed jon yure on fire but pa node he wusent so he sed trooly it was a Goste. wel too mend the matter the cat had jard the



## Wit and Humor



stove so much thet the dore fel open an he eskaped an has never bin seen sense, wich I am afrade wil never cum back. but the wurst hasent cum yet.

Wel, wen I told the joke pa sed yu triflin skamp an started too wip me, so ma noin it was a joke, pikt up a stik ov wood an struk pa so hard he fel with out a murmur, an was unkonshus for 4 ours, an has to ware a stickin Plaster over the woond to this day, wich is heelin sum wat.

also plees let me no if ise plants bare big Chunks ov ise the furst yeer an do tha need much richnes.

yures respectfully:

BIL.

### The Patter of the Shingle

When the angry passions gather, in my mother's face I see,  
And she leads me in the bedroom—gently lays me on her knee,  
Then I know that I will catch it, and my flesh in fancy itches,  
As I listen for the patter of the shingle on my breeches.

Every tinkle of the shingle has an echo and a sting,  
And a thousand burning fancies into active being spring;  
And a thousand bees and hornets 'neath my coat tails seem to swarm,  
As I listen to the patter of the shingle, oh! so warm.

In a splutter comes my father—whom I supposed had gone—

To survey the situation and tell her to lay it on;  
To see her bending o'er me as I listen to the strain  
Played by her and by the shingle in a wild and weird refrain.

In a sudden intermission, which appears my only chance,

I say: "Strike gently, mother, or you'll split my Sunday pants."

She stops a moment, draws her breath, the shingle holds aloft,

And says: "I had not thought of that—my son just take them off."

Holy Moses! and the angels, cast your pitying glances down,

And thou, oh, family doctor, put a good, soft poultice on.

And may I with fools and dummies everlastingly commingle,  
If I ever say another word when my mother wields the shingle.

—From the Tamaqua Courier.

### Proposition in Education

A teacher in a Tucker County public school received the following letter the other day:

"Sir—Will you in the future give my son easier soms to do at nites? This is what he's brought hoam two or three nites back: If fore gallons of bere will fill thirty-to pint bottles how many pints and half bottles will nine gallons of bere fill? Wel, we tried and could make nothing of it at all, and my boy cried and laughed and sed he didn't dare to go back in the mornin' without doin' it. So I had to go an' buy a nine-gallon keg of beer, which I could ill afford to do, and then he went and borrowed a lot of wine and brandy bottles. We filled them and my boy put down the number for an answer. I don't know whether it is right or not, as we spilt some while doin' it. P. S.—Please let the soms be in water, as I am not able to buy more bere."—Moundville (W. Va.) Echo.

### Strictly a Business Transaction

One day a stranger went to a horse dealer and wished to hire a horse and trap for a day's outing. Not knowing the man the horse dealer declined to trust them in his hands. The stranger was determined, however, upon having his drive, and proposed, therefore, that he should pay the full value of the horse and trap on condition that he sold them back at the same price in the evening if he brought them back safe. To this the other could see no objection. The horse and trap were returned in good time, and after receiving back the sum paid for them in the morning the stranger turned to go.

"Hold on," exclaimed the dealer, "you have forgotten to pay for the hire."

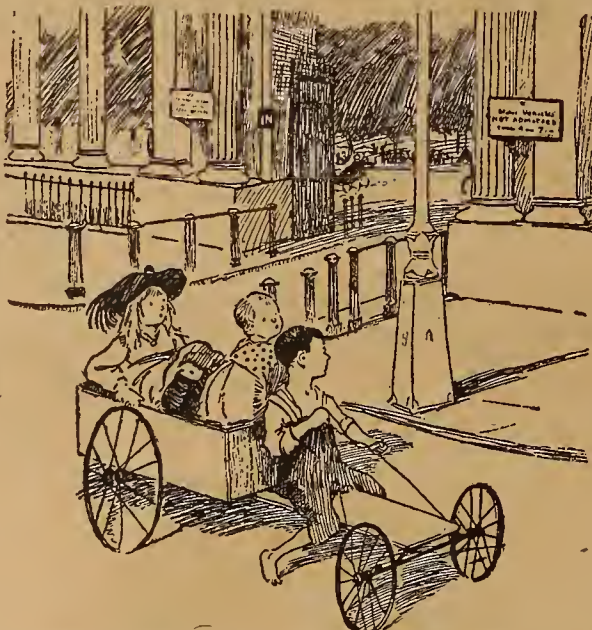
"My dear sir," was the cool reply, "there is no hiring in the case. I have been driving my own horse and trap all day." And the astonished dealer was left to think the matter over.—The Tatler.

### Followed Example

Having announced his text, an old colored preacher down in Georgia, as related by the Atlanta "Constitution," went on to say, "My attention has been drawn ter de fact dat some scoundul has gone'n put a alligator in de pulpit, right under my two foots; but, long ez he dar, I gwine let him stay 'twel atter de benediction; fer I notice dat, des lak de res' er you triflin', no 'count sinners, he done made up his mind ter take it easy en sleep through de sermon!"

### A Misplaced Kick

A gentleman unexpectedly took a friend home to dine with him. Before dinner his wife took her husband aside and impressed upon him that when the sherry in the decanter was exhausted he must not ask his friend to take any more, as there was none in the house. The husband promised to remember and act with all due discretion. When the sherry was exhausted, however, the husband in a fit of mental aberration pressed more upon him. The wife looked distressed and the vis-



Urchin Chauffeur (reading notice)—"It ain't no use, 'Onoria. The notice says motors ain't admitted!"

itor declined. After the visitor had departed the lady said reproachfully to her husband, "How could you press him to take more sherry when I had already warned you there was none in the house?"

"I am very sorry, dear," said the patient husband, "but I forgot all about it."

"How could you?" she replied; "what do you suppose I was kicking you under the table for?"

"It wasn't me you kicked," said her husband.—The Tatler.

He (cautiously)—"Would you say 'Yes' if I asked you to marry me?"

She (also cautiously)—"Would you ask me to marry you if you thought I'd say 'Yes'?"—Illustrated Bits.

### Roughshod

He—"You know some one has said: 'If you would make a lasting pair of boots, take for the sole the tongue of a woman.'"

She—"Yes; and for the uppers the cheek of the man who said it."—Boston Evening Transcript.

The best man at the wedding is sometimes hard to pick out—of course the bride may consider him the bridegroom, but the maid of honor would speak for the handsome usher, and the bride's mother for the rich uncle who gave the handsomest gift, and the bride's little brother for the caterer, so there you are.—Home and Abroad.

### The Cur Was Fooled

A small but belligerent dog was left in charge of a buggy while his master attended to some business in a neighboring store. A large brindle-complexioned cur happened along that way, and, seeing nothing about the buggy to guard it, except the small dog, concluded to help himself to some provisions he saw in the vehicle, supposing that his size would bluff the

guard. To his astonishment, the small dog did not bluff worth a cent, but, on the contrary, made a running jump, climbed all over the brindle cur, and bit him in four different places within three seconds by the watch. It was a great surprise party to the brindle cur, and, filling the surrounding atmosphere with howls of pain, he lit out down the street. As the small dog quietly lay down again under the buggy he remarked softly to himself, "I have noticed during my association with both dogs and men that nerve and activity count for a blamed sight more than size and hair."—Valley (Texas) Farmer.

### Tantalizing

"See here," grumbled the inmate of murderers' row, "ain't there a law agin crool and onusual punishment?"

"Yes," answered the warden.



"An' ain't I goin' ter be hanged next week?"

"I'm afraid you are."

"Then what d'yer mean by sendin' me a bunch of story papers to read that ain't got nothin' but continued stories in 'em?"—Cleveland Leader.

### Limited Service

Bishop Brewster, of Connecticut, while visiting some friends not long ago, tucked his napkin in his collar to avoid the juice of the grape-fruit at breakfast. He laughed as he did it, and said it reminded him of a man he once knew who rushed into a restaurant and, seating himself at a table, proceeded to tuck his napkin under his chin. He then called a waiter and said, "Can I get lunch here?"

"Yes," responded the waiter in a dignified manner, "but not a shampoo."—Lippincott's.

### The Woman's Hat

We have sometimes thought that the first question which a woman would ask when entering the gates of the New Jerusalem and going up the Golden Street would be, "Is my hat on straight?" Is there a man amongst us all whose wife has not asked him this question regularly for the last twenty years or more, and yet who of us ever knew the hat to be on crooked? It is said there is a Michigan church where the minister requested the women in his congregation to remove their hats Sunday after Sunday, but they replied every time that it was impossible to do so without mirrors: Now that astute doctor of divinity has solved that question by putting up large mirrors near the church doors to enable the ladies of the congregation to get their hats on straight after service. Verily there is progress in church affairs all along the line!—Western Christian Advocate.

### Certainly the Exception

We come upon the auto standing upon the brow of the hill.

"Hello," he says to the chauffeur. "Broken down?"

"No, sir," he responds.

"Out of gasoline?"

"No, sir. We have plenty."

"Tire punctured?"

"No, sir. The tires are in perfect condition."



"Lost your way?"

"No, sir. The country hereabouts is very familiar."

"Dropped something from the auto?"

"No, sir. Nothing of the sort."

"Then why are you standing here? Why are you not shooting down the hill and across the level at a terrific speed?"

"I do not care to do that," says the owner of the machine, who has been silent until this moment. "I had my auto stopped here so that I might enjoy the magnificent view from this elevation."

With a frightened glance at him, we turn and hasten to the nearest town, to warn the officials that an evidently insane person is at large in an automobile.—Kansas City Independent.









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## The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries, of general interest only, from our regular subscribers will be answered in this department, each in its turn. On account of the large number of questions received, delay in giving printed answers is unavoidable. Querists desiring an immediate answer, or an answer to a question not of general interest, should remit \$1.00, addressed to "Law Department," this office, and get the answer by mail.

### Notice to Inquirers

**B**EFORE sending a legal inquiry, please read carefully the notice standing at the head of this department. So many questions are received that it is impossible to avoid delay in giving printed answers, as each must wait its turn. In order that as large a number as possible may share in the services rendered by this department, let each inquirer make his statement brief and to the point. If you desire an immediate answer, or an answer to a question not of general interest, you should remit one dollar, and get the answer promptly by mail. — [Editor FARM AND FIRESIDE.]

### Right to Remarry

M. G. asks, "Can I get married again? I have been away from my husband six years. He is in England. He never supported me. He drinks, and I never hear from him. How long will I have to wait before I could get married again?"

The mere fact that your husband has been absent from you for a number of years and never supported you, or has been guilty of drunkenness, does not warrant you in getting married again without being first legally divorced from him. No doubt you can get a divorce. If you should marry without a divorce, you would be guilty of bigamy, and might be sent to the penitentiary.

### Purchase of Land of Deceased Person

J. R. D. says: "Five years ago I sold my farm to my sister's husband, giving him a good deed of it. Two years later he died, not having his business done, leaving my sister and three children, the oldest fifteen years of age. Is there any way I could buy the farm back and get a good deed of it?"

The only way that you could get back the farm would be by court proceedings. If the husband left debts, then an administrator might be appointed, and he could sell the real estate; or, if there are no debts, a guardian of the minor children might get an order of court to sell the same.

### What Comprises Household Goods

A. P. wants to know "if a musical instrument can be given to a stepmother with household goods, or if a musical instrument is a part of household goods? The instrument was bought by parent and always known as the parent's. This instrument is worth \$200. The appraisers gave it to the stepmother as part of the household."

Yes, I think it would be included within the term of household goods. In a Virginia case it was said that household goods is a wider term than furniture, including everything about the house that had been usually held and enjoyed therewith, and that would tend to the comfort and accommodation of the householder. It would not include a watch, but it would include a clock.

### Transfer of All Property to One Child

A. M. W., Pennsylvania, says: "My mother owns third interest in land and all personal property. Can she sign all to one son without debt? Can she do this without giving the rest of the children anything? My mother is dead now. Is that signment good?"

I do not know what you mean by signment, unless you mean that your mother assigned a transfer or sold her property without consideration, or in other words, gave it to her son. If she knew what she was doing and did it in a legal way, she had a perfect right to dispose of her property as she might desire, and I would say that the signment is valid.

### Right to Compensation for Improvements Put on Property When Party is Dispossessed by Fault of De-fective Title

K. J., New York, writes: "Some years ago a certain property was sold at auction. Two lots were bought by A., and he did not have this recorded, nor did he pay any taxes. These two lots were sold for taxes, twenty-three years ago, to B., and a tax deed given and this deed recorded. During this time improvements have been made on the property. Now will you tell me, if claimants or heirs should appear, what would the present owner have to do in that case? After so many years, is it possible to get a good

deed in New York City entitling the present owners and their heirs to full possession forever?"

The tax title is reasonably good, but if it should for any cause be set aside, the person putting up the improvements would be entitled to compensation for the same. The only way that the title might be cleared up now is for the parties to bring a suit in court to quiet the title.

### Right to Pay for Services Rendered by Child to a Parent

A. B., Ohio, asks: "Is there any law in Ohio whereby a child can get paid for taking care of a parent? My father has been making his home with me for over five years. He owns one hundred acres of land in his own name. I have one sister, but she refuses to help take care of him. At his death, can I lay in a claim and get my pay out of the land?"

The law presumes that when a child serves a parent, or a parent serves a child, that it is done without any charge therefor. Consequently before payment for services can be recovered, a contract must be proven between the parties for the payment for such services. In your case you should have your father agree in the presence of witnesses that you should be paid for your services. If that be done, you would have a claim that you could collect.

### Right to Sell Property Willed

C. K. W., Pennsylvania, queries: "A father wills to a son his real estate, at the son's death the real estate to go to the son's heirs (no names). Can the land be sold for debts contracted by the son after the will went into effect?"

In questions like the above it is very essential that the exact language of the will be given. If it merely gave the real estate to the son, his heirs and assigns, then the son would have a free title, but if it gave it to the son for life, and then to his heirs or children, he would only have a life estate, and only a life estate could be sold for debts. The children's interest could not be affected.

### Right of Husband to Wife's Property, etc.

A. E. K., Ohio, asks: "In case of death of wife, who had property bestowed on her by her father as her share of the estate, would the husband have interests in the wife's land?"

By the laws of Ohio, where the husband survives a wife, and the wife dies owning real estate coming to her by inheritance or deed of gift, he has a life estate therein, unless she makes a will; then he has a dower or life estate in one third.

### Right of the Citizens to Have Public Construct Bridges, etc.

T. B. P., Ohio, inquires: "We live where we have to cross a creek when we want to go to town or haul our grain to market, and the creek cannot be crossed more than about half of the year, and there is no other way to go. Can we compel the county to build a bridge or open another public road some other way?"

The law puts the matter of the construction of bridges entirely within the discretion of the county commissioners, and this discretion cannot be interfered with by any other body or person.

### Unjust Assessment on Ditch Improvement

M. H. L., Ohio, says: "A tile drain for the benefit of ten or more neighbors runs through the lands owned by A. and B., benefiting each the same. They are located near the center of the drain and are each assessed seven dollars an acre, while the others above and below, receiving the same benefit, are only assessed from four to four and one half dollars an acre. This assessment made by the county commissioners seems to us (A. and B.) to be unfair."

The commissioners in the first instance are to assess the land according to its benefit; if they do not do so, the party affected must appeal his case to the higher court. Generally the commissioners endeavor to be fair in this matter, and generally each person thinks that his assessment is too high and his neighbors' too low. Unless the unfairness of the assessment is very manifest, and it amounts to a considerable sum, I would advise legitimating the matter.



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**No. 698—Lingerie Waist with Yoke**  
Cut for Sizes 34, 36, 38 and 40 inches bust measure. 10 cents.



## Farm Selections

In Germany 440,000 tons of nitrate of soda and 165,000 tons of sulphate of ammonia are annually used as fertilizers.

Ecuador, in South America, is the largest cocoa-producing country in the world. It is situated between Chili and Colombia on the Pacific Coast.

The butter factories in Argentina are now inspected by trained experts, so that a superior product is now assured. In 1904 the value of the exports to Great Britain and Africa amounted to \$2,117,461.

No farmer can afford to keep away from the farmers' institutes or fail in keeping up a regular correspondence with the directors of the state experiment stations and the United States Department of Agriculture.

Indian Key, a ninety-acre island in Tampa Bay, on the west coast of Florida, has, by executive order of President Roosevelt, been set aside for the use of the United States Department of Agriculture as a reservation or preserve for a breeding ground for native birds.

The San Francisco "Commercial News" says that 580 acres of salt marsh land near that city are to be used for the growing of asparagus and celery. The impression prevails that such lands impart a delightful flavor to the asparagus and blanches the celery better than fresh-water soil.

The State Highway Commission of Illinois is about to begin the construction, maintenance and improvement of the public roads in that state. Mr. A. N. Johnson is the state highway engineer who is to supply the local authorities with engineering data adapted to the needs of each locality.

The line of the most profitable production on American farms, in the order named, is said to be the raising of vegetables, fruits and beets, hay and grain, tobacco and dairy farming. The least remunerative of all is the raising of beef. For the most profitable beef production unlimited pasturage is a primal consideration.

Missouri is determined to lead in the matter of agricultural education. The latest move of the State Board of Agriculture is the organization of a lecture course. Lecturers are to be sent to the county schoolhouses to speak to the children and parents on home, farm and educational topics. One lecture in the afternoon and one at night will be the plan usually followed.

### Catalogues Received

Hugo Beyer, New London, Iowa. Illustrated seed catalogue for 1906.

Phoenix Nursery Co., Bloomington, Ill. Spring catalogue of "Red Tag" trees.

Chicago Flexible Shaft Co., Chicago. Illustrated catalogues of hand and power horse-clipping, sheep-shearing and grooming machines.

The Philip Carey Mfg. Co., Lockland, Ohio. "Interesting Facts About Roofing," illustrating and describing Carey's flexible cement roofing.

Oread Institute, Oread, Md. Handsomely illustrated catalogue of Oread Institute school of agriculture, manufactures and commerce.

The Aultman & Taylor Machinery Co., Mansfield, Ohio. Illustrated catalogue of grain separators, rice separators, clover hullers, traction engines, etc.

The Goulds Mfg. Co., Seneca Falls, N. Y. "How to Spray, When to Spray, and What Sprayers to Use." Also, catalogue of improved hydraulic rams.

A. T. Goldsborough, Wesley Heights, Washington, D. C. Circular describing the "St. Louis Prize" and "Goldsborough" strawberries and the "Duplication" gooseberry.

### Books Noticed

Proceedings of the American Forestry Congress—1905. From H. M. Suter, Secretary of the American Forestry Association, 510 Twelfth St. N. W., Washington, D. C.

Practical Cold Storage. The Theory, Design and Construction of Buildings and Apparatus for the Preservation of Perishable Products, Approved Methods of Applying Refrigeration and the Care and Handling of Eggs, Fruit, Dairy Products, etc. By Madison Cooper. Fully illustrated, 500 pages, cloth bound; price \$3.50. Madison Cooper Co., Watertown, N. Y.



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# FARM & FIRE SIDE



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## Around the World Travel Letters

By Frederic J. Haskin

### EGYPT

**A** GLANCE at the map shows that Egypt is four hundred thousand square miles in extent, an area seven times the size of the New England States but in reality only one fortieth of this can be cultivated—just a narrow strip on either side of the Nile which can be reached with the water from that stream. In fact, the area of land that gave Egypt its great fame as an agricultural country is not much larger than the state of Massachusetts.

Egypt is altogether dependent upon the Nile because it has no other river. The great stream does not even have a tributary in the country. The water which means life to the Nile dwellers comes from the torrential rains in Central Africa, hundreds of miles away. The total length of this great African stream is 4,062 miles, and it is only second in length to the Mississippi, which is 4,112 miles long. During four months of the year it rises and inundates the territory on either side of it, depositing upon the land the sediment which gives such wonderful fertility. After the floods subside the land is parched by eight months of drought.

If it were not for the provision made to store the surplus water of the floods and distribute it over the soil during the dry season, no crops could be raised in Egypt. The land bordering the Nile is from fifteen to twenty-five feet above the river, which necessitates great labor in raising the water. From the earliest times most of the work has been done by manual labor, but in recent years considerable machinery has been installed, and many pumps are now being utilized on the larger plantations.

It is estimated that it takes four hundred tons of water to saturate each acre of land, and this must be repeated four or five times each season. The cost of this work is computed at ten dollars an acre. While the farmer in Egypt cannot depend upon his soil receiving its moisture from the clouds, he has no fear of frost, and can get laborers for ten or fifteen cents a day. He does not have to worry about paying these men until the crop is marketed, because it is customary for them to receive their wages in bulk at the end of the season.

Inasmuch as the fertile area of Egypt was limited to that portion which could be reached by water, it has remained a very small one, because the farmer could only retain a fractional part of the great volume of water which passed him in its rush to the Mediterranean. Science has devised methods for holding more of this precious fluid, and every barrel of it that can be saved and distributed means just that much additional soil brought into use. The great dam built across the Nile at Assuan has imprisoned a body of water one hundred and sixty miles long, which is sufficient to reclaim 1,600,000 acres of desert.

This means an actual enlargement of the cultivable area of Egypt by twenty per cent. This dam consists of a solid wall of masonry a mile and a quarter long, eighty-two feet thick at the bottom, and twenty-three feet thick at the top. Its extreme height is one hundred and thirty-one feet. This dam has one hundred and eighty openings twenty-three feet high and six feet wide, and can release fifteen thousand tons of water per second. It cost twelve million five hundred thousand dollars, and the first crop raised on the land it reclaimed was sufficient to pay for it.

Most of the soil restored by this great enterprise is used for growing cane. Where there was formerly nothing but dreary sand-banks along the Nile, there are now clusters of cane-mills, and large sums of money are being invested in the industry. The quality of the Nile cane is

very high, the value of the crop ranking second to cotton. This last-named product is the great staple of Egypt. The soil is so rich that the Nile farmer gets twice as much from each acre as the American cotton-planter produces. The country realizes nearly sixty million dollars a year from the sale of its cotton, which is sufficient to pay the interest on the big foreign debt,

they themselves receive only a small portion of the wealth which they create. They are almost as destitute and miserable as the soil tillers of India. They are ignorant and bound by the fetters of superstition. The homes of the peasants are nearly all constructed of dried mud. In one end of the hovel there is a large oven, generally the whole width of the room,

here, like that of India, is dried cow manure mixed with straw and sticks.

Aside from being poorly housed, the Nile people do not have wholesome food. Having to work hard without proper nourishment, they are subject to disease in many forms, and suffer greatly because they know little about the use of medicine. Very old people are seen occasionally, but seldom. Most of us at one time or another in our lives have some serious illness to which we would likely succumb if we did not have proper medical care. It seems almost a marvel that a race of people who treat all their ills by charms and absolutely senseless formulas of superstition can even survive.

When an Egyptian gets the toothache, instead of pulling out the one that is affected, he pulls out a sound one and hangs it up behind the door to appease the spirit that he thinks has taken up its abode in his jaw. If a woman is troubled with a sty on her eyelid, she goes to seven different houses and begs a bit of bread at each one. These seven morsels, when rolled together and eaten, are supposed to be a sure cure. Another favorite treatment for sore eyes is to dip a piece of cotton in the trough where dogs drink and then wipe the eye with this. The Egyptians on the whole are a sore-eyed race. This is mainly due to the fact that the babies are neglected altogether. Their faces are never washed for fear of certain evil influences. The filth attracts flies, which are never brushed away, but left to torment the little ones and cause sores.

When a mother thinks it is about time for her baby to begin to walk, she takes it to the mosque with its feet tied together with palm leaves. She asks the first, second and third persons who come out of the place of worship to partly untie the bandages. She then carries the little one home, firm in the belief that if her baby ever learns to walk it will be due to the charm of this performance.

The education of the children goes little farther than teaching them to despise Christians and to learn passages from the Koran. The instructors themselves frequently are unable to read or write, and impart their knowledge by reciting from memory. Among other things the young Moslem is taught to believe that women have no souls, and that even the meanest man who enters heaven is to have eight thousand servants, and seventy-two of the most beautiful girls in paradise for his wives. Every man is to live in a large tent decorated with pearls and emeralds, and is to be waited upon by three hundred attendants while he eats.

At each meal his fare is to be brought to him in three hundred different dishes of gold, each containing a separate kind of food, and he will be blessed with such an appetite that he can go through the whole course with relish. He is further taught that when he gets to paradise he will wear green silk clothing and have nothing to do but sit around and take things easy. To people who live in such filth and squalor, prospects like this must be alluring. It is not surprising that they become fanatics and have no fear of death, when they are taught that such a luxurious life is waiting for them in the other world.

It is pathetic that the Nile people, who are the oldest and hardest-working farmers in the world, should profit so little from their great toil and the rich land that nature is constantly restoring for them. Their country is old, so old that it was a place of refuge for Joseph and Mary when they fled from Palestine, so old that its tombs have told the story of the ages to the men of science, and yet poverty and ignorance and blind superstition still lie upon it like a blight.



EGYPTIAN HUT, AND DATE PALM

and pay all the expenses of the government. If it were not for its cotton crop the land of the Pharaohs would be hopelessly bankrupt.

Although the farmers of the Nile undoubtedly have the richest soil in the world, and produce record-breaking crops,

which is flat on top and about breast high. During the winter the family manage to keep warm by sitting on this oven during the day and sleeping on it at night. If the family is large the parents occupy the oven at night, and leave the children to huddle together on the floor. The universal fuel



### The Bunch Onion

THE appearance of my Portugal onion patches proves that we have more to fear from the open winters, the violent changes in the weather, and especially the almost entire absence of the protective snow covering all winter long, than from extreme and steady low temperatures. The two winters before this last one had brought us long and severe, almost extreme, cold weather, but with a reasonable amount of snow. The Portugal onions in both winters came out in perfect condition in spring. This year, however, at least the later plantings have suffered considerably, especially by heaving out. The earlier plantings were too well rooted to be much affected in this way. But I shall not have as large a crop of early bunch onions as I had the year before, although I have almost doubled the planting. Probably the fact that some of my patches were not so thoroughly drained as those the year before, or as thoroughly as they should have been, may account in part for the more unfavorable outcome.

### Good Lettuces

For my earliest outdoor lettuces, I have planted May King, Lapp's Cabbage and Holtzschuh's Success. If any reader knows of any better for the purpose, I hope he will inform us. The plants have been pricked out from the greenhouse bench into flats, about two inches apart each way, and when the garden gets dry enough, this spring (which I hope will happen soon), they will be set about eight inches apart in the row, with rows a foot apart, of course in the richest spot we have, and there is little doubt but that we will get some extra fine lettuce heads of extra large size.

### Some Insect Enemies

A reader complains of small, white worms, about half an inch long, which get under a flower pot if set on the floor in summer, and eat the floor up, or ruin a carpet if they get under it, and are found in large numbers under boards in the yard. The only advice I can give to our friend is to send some of these worms to the experiment station of his own state for investigation, or to breed some of the insects by keeping some of the worms confined with what they feed on, and then see into what they will develop. Scrupulous cleanliness, however, and the free use of disinfectants, or of fumigation, I should think would control this "worm," whatever it may be.

### Canning Asparagus

A reader asks whether asparagus can be canned and be as good as fresh. Asparagus is being canned on a large commercial scale in California and other places. I would not assert that the canned article is as good as the fresh. I hardly know of anything in this line that tastes as good when it comes out of a can as it does when coming fresh from the garden or fruit patch. As to the canning of asparagus at home, it seems to be a tough proposition. Like canning peas, we have repeatedly tried it, but have no reason to brag over our success. We shall have to give it up, unless there is more information on the subject forthcoming.

### Garden Huckleberry

The black nightshade has already had its notice in these columns as a novelty more interesting than useful. It was introduced last year as a novelty of the season under the name of "garden huckleberry." My friend, Hugo Beyer, of Iowa, now tells me that he finds this fruit very useful as pie timber, and wants me to give it another trial. The berries were tried by him late in December last, having kept in good order, fresh and solid, up to that time, and the pies were pronounced better than those made of any other berries used for that purpose. The plant is coarse and weedy looking, and I have no doubt, from my one-year experience with it, that the berries can be grown very easily and cheaply. I will try it again.

### Fertilizers and Stable Manure

Twenty years ago my neighbor, T. M. White, in New Jersey, with whom I then had many an "across-the-fence" talk about garden matters, looked with a great deal of skepticism on my efforts to raise good garden vegetables on land none too rich, with commercial fertilizers only. He then considered stable manure, of which he himself used large quantities, indispensable to best success. I secured the results, however, somewhat to his astonishment. In the last issue of the "Rural New Yorker," Mr. White tells of a number of farms on Long Island, where for some years fertilizers have been the only source of plant food aside from the small amount of manure made by the work horses and a few cows, and which farms he found to be in good condition, the soil being more productive than ever before. Evidently Mr.

## Gardening

T. GREINER

White has become a convert to the judicious use of chemical fertilizers. In the meantime I have become a convert to the doctrine of the superiority of stable manure, to such an extent that I buy stockyard manures in preference to chemicals, and use the latter only for special purposes. Such are the differences in conditions. Here I can buy more actual plant foods in a car of stockyard manure than what I could procure in the amount of chemical manures costing the same money. And I get the bulk, the organic matter or humus, for nothing, or for the hauling from the station. The humus, on my clay loam, is of as much importance as the real plant foods are themselves. My old-time friend warns against the continued use of acid phosphates as being liable to render the soil acid. We heard this same note of warning sounded by the Ohio Experiment Station. I use acid phosphate to some extent, as I also use nitrate of soda and muriate of potash. But it does not seem to me likely that the few pounds of acid which can be applied to the soil in a few hundred pounds of dressing of acid phosphate will have any pronounced effect in souring the soil. I am willing to risk it.

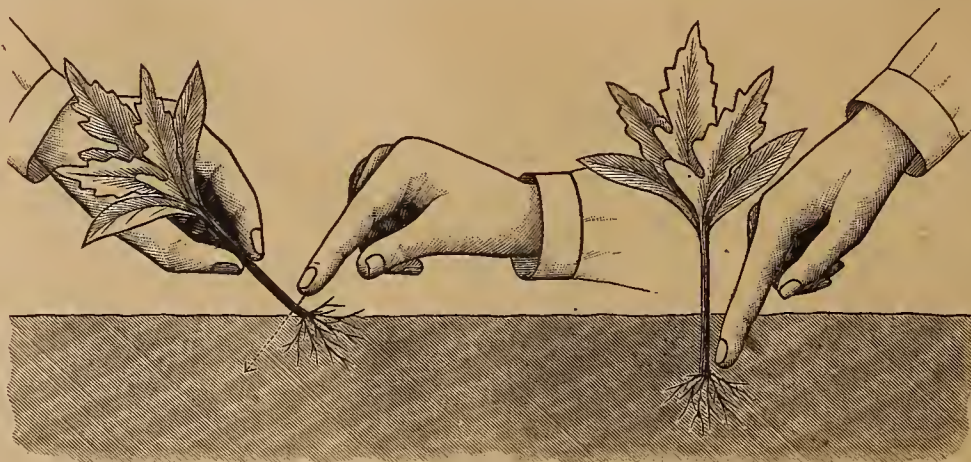
### The Early Potatoes

After the additional experience of last season, when we again harvested a good crop of early potatoes and a very indifferent yield of late ones, I had already made up my mind to grow only early ones hereafter, and let other growers, with better soil and climatic conditions for the production of a late crop, grow late varieties. On my strong clay loam properly enriched I have never yet failed to secure a big yield of Early Ohios, usually overrunning two hundred bushels to the acre, and in smaller patches sometimes going beyond the four-hundred-bushel mark. The crop is out of the way not later than early in August, so that the patch can be used for a second crop, as for instance late celery, turnips, etc., or Portugal or similar onions for following spring's bunching. It is a crop, therefore, that makes good tillage and the extermination of weeds a comparatively easy task. It also insures us good quality in our table potatoes. Up to a week or two ago we have been using Carmans and some other late varieties for our table, and on account of their indifferent quality we finally got to be indifferent about it whether we had potatoes on the table or not. Then we turned to the Early

this family for some years. Also, put plenty of potash in your soil. I believe that heavy applications of wood ashes, especially if unleached, say a ton to the quarter acre (two or three times that much of leached ashes) will give you exemption from club root, even where cabbages and similar crops are grown more than once in succession on the same land.

### Setting Small Plants

Just at this time we have more or less "pricking out" (so called) to do, which means the setting or replanting of small seedlings in "flats" (shallow boxes), or on the greenhouse bench, or in frames. The lettuce plants for earliest outdoor crop are usually started in nursery rows on the bench, then pricked out in flats, and thus held, usually in cold frames, until the condition of soil and season admits of their transfer to the open ground. Tomato plants are also given their first transplanting from the nursery row, sometimes directly in flats about three inches apart each way, or in small plant boxes, singly, or in the cold frame, in either case to be grown directly for the final transfer to open ground. The early tomatoes, however, are always first "pricked out" on the bench, the rows being made about three inches apart, with the plants about two inches apart in the rows. These seedlings then appear as shown in illustration, are about two and one half or three inches high, and are dibbled in with the finger. The plant is held between thumb and index finger of the left hand and placed with its roots on the earth a little to the right of where it is to stand. Then the index finger of the right hand pushes it into its proper place in the soil as shown, and finally the surface is smoothed with the fingers. The manipulation is more quickly gone through with than I can describe it. Whenever I have small plants to set out in nice, clean, mellow soil, may they be tomato, pepper, cabbage, cauliflower, celery, onion, eggplant, or any other of this kind, I always dispense with the use of a dibble. I have settled it to my satisfaction, by actual trial, that I can set nearly or fully twice as many onion plants in a given time with the fingers only, as by the use of a regular dibble. Of course, if the soil has been allowed to become hard, as it often will if the planting is not done very soon after the preparation of the ground, then the use of a dibble, such as a simple sharpened stick, may become absolutely necessary. In such



"PRICKING OUT" PLANTS

Ohios, all of which had been put away for seed. We dug well down into the bin where the tubers had not been exposed to the light, and found them fresh and crisp, and so good in quality when cooked that our daily consumption at once doubled or trebled. Besides its other advantages, for our purposes, the Ohio is also one of the best keepers, keeping later in spring than most others without sprouting. So after this it will be early potatoes for us, and few if any others. Among the newer ones I am this year testing the "Eureka," and of course again the "Noroton Beauty," both of which are very early.

### Club Root in Cabbages

A Pennsylvania reader says he has taken the FARM AND FIRESIDE for two years and never seen anything in its columns about club root of cabbages and how to cure it. In his vicinity they can hardly ever raise cabbage free from this disease. I raise cabbages right along, sometimes on the same ground twice in succession, and yet I have not seen a case of club root for some years. This disease cannot be cured, although it is easily preventable. Always use new and uninfected soil for your plant bed, and set the plants in new soil, or in soil which has not been used for cabbages, cauliflowers, radishes, turnips or crops of

case, however, it may be advisable to loosen up the surface again, by means of cultivator or harrow, and refit it anew for planting, rather than plant in the hardened soil with a dibble. In short, it was a master workman who devised the original dibble, and fitted it out with the sensitiveness and flexibility which no human inventor has ever been able to put into a mechanical dibbling device.

### Large Squashes

A reader in the Far West desires to grow large squashes. Her vines have usually branched out quite freely, and either not set at all, or produced very small squashes. I usually like to have my vines branch freely, as I can sell small Hubbards more readily than very large ones. People do not care to buy the large specimens, as they are too big for a single mess, and that is all they care to buy at a time. A big squash when once cut and part used, is liable to spoil before the next mess is wanted. So really only the hotels and restaurants are the ones who will take large squashes. To grow very large specimens, however, is easily accomplished by supplying two requisites, namely: (1) planting on very rich and specially prepared soil, and (2) restricting the growth

to one or two vines in a hill and one branch only to the vine. The majority of the blossoms on all vine fruits, of course, are male blossoms and do not set fruit. The fruit blossoms are usually fewer in number, and when visited by insects, among them even the yellow-striped cucumber or squash beetle, and especially bees and bee-like insects, receive the fertilizing pollen which the insects have brought with them from the male blossoms. For growing exhibition squashes, the soil in each hill should be thrown out and thoroughly mixed with a fair proportion of good old compost and some poultry manure, the mixture then thrown back and the seed planted. Leave only one or two plants in a hill, and only one squash on each vine. To encourage the tendency to fruit setting where that tendency seems to be weak, I would also apply a little superphosphate (acid phosphate), or in its absence, bonemeal, in the hill, scattering it over a circle several feet in diameter.

### Live Bean Poles

A Kansas reader asks whether sunflowers might be grown as a support for running beans. It can be done. Only a few years ago I had a patch of the sunflower-lima-bean combination, having planted a sunflower seed in the center of each hill of limas. The sunflowers grew nicely, but the limas did not show to great advantage. I believe I can grow more sunflowers in a patch by themselves, and also more limas, on a quarter the area if supported by wire trellis (or by poles) than supported by sunflowers. Poles are a rather scarce article here. Probably they are so with our Kansas friend. In such case, the wire trellis seems to be the most available device for giving the needed support to our "pole" beans.

### Information on Onion Growing

A lady reader writes from Oregon that she has taken the FARM AND FIRESIDE, with only one year's intermission, for twenty-six years. She asks for information about onions from planting to market. It seems to me that during the last twenty years I have given so much in these columns about onions and onion growing, in all its different phases, that I feel I must hereafter treat this subject rather gingerly for fear of wearying the reader. Special information on onion growing, however, is readily available, as there are several good books on the subject in the book trade, and none offered at more than fifty cents. For an exhaustive treatise on the culture of any particular vegetable, the reader must look to special books as a source of information.

### Fertilizers for Apple and Pear Trees

The United States Consul at Nottingham, England, reports that a series of experiments made as to the best method of improving apple orchards that are declining in productiveness, show that the best results were obtained by a complete manure consisting of one and one eighth pounds of sulphate of ammonia, one and one half pounds of muriate of potash and three and one half pounds of basic slag per tree per annum, applied to the roots during the winter. The fifth year the unmanured row of apple trees each yielded in number two hundred and ninety-four, weighing fifty-five pounds. The fifth year's production of each tree in the manured row was four hundred and one apples, weighing one hundred and five pounds. There was a marked increase in the average size of the apples. Those from the unmanured trees averaged 2.98 ounces and those from the manured trees 4.19 ounces each.

The application of three pounds of nitrate of soda, two and one fourth pounds of muriate of potash and five pounds of basic slag per tree to pear trees during the winter months produced the following result: In 1904 the yield from each unmanured tree was but fourteen and three fourths pounds, while from the manured trees the yield was eighty and three fourths pounds per tree. W. M. K.



## Inoculation for Insects

EVERY once in a while someone brings forward the idea that it is possible to inoculate trees with some material that will be taken up in the sap that will kill insects and disease. It is rather a plausible scheme, but scientific men have as yet been unable to get satisfactory results from this treatment for the prevention of insects and diseases.

I remember when a boy, some thirty years ago, that someone found in one of the trees on Boston Common pockets of sulphur that had been put in there some twenty years previously, but it remained as sulphur just the same as when it was put in, as it is not easily soluble. The sap of plants can be made to take up many kinds of solutions, but if they are made strong enough to kill insects or diseases they have been found to kill the plants.

\*  
Spraying Apples

E. J. P., Hudson, Kan.—If your apples are wormy you should certainly plan to spray them, using for this purpose Paris green in water at the rate of one pound to one hundred and fifty gallons of water. This should be sprayed on the trees as soon as the flowers fall, and should be repeated again in from two to three weeks. You do not need any sulphate of copper for this purpose. It is, however, a very desirable thing to spray with—when made with lime into Bordeaux mixture and applied for the prevention of fungous diseases, such as scab and leaf rust. As a rule, apple trees do not get any too much cultivation, but it is possible to keep them growing too fast. I should gauge my cultivation by the growth of the trees. The chances are that your trees have been growing a little too fast, and this has delayed their forming fruit buds, which they will probably do ere long.

\*  
Grafting Big Branches

A. S., Payette, Idaho.—Referring to your inquiry about the new method of grafting given in the issue of December 1st, if you wish to graft a stock four inches in diameter according to this plan,

## Fruit Growing

By S. B. GREEN

water or whale-oil soap. In washing the leaves take each one separately in the hand and go over it with a sponge moistened with the soap and water. When completed give the plant a thorough washing with clean water. This will have to be repeated perhaps two or three times a year in order to keep the leaves free from this insect.

I also find on the leaves evidences of injury by red spider. This is a common pest in greenhouses, and in dwelling houses where the plants are in a dry atmosphere. The best treatment for it is to spray the foliage occasionally, or dip it in water, but the treatment recommended for the scale would also be good for the red spider. I think the chief injury is due to the red spider, and that the scale is not sufficiently abundant to cause much trouble as yet.

\*  
Black Knot on Peach Trees

W. B., Lyndenville, N. Y.—The injury to your peach trees is done by a disease analogous to black knot. The chances are that it will soon destroy your trees. It may be best, however, for you to let them go so long as they are fairly productive. Where it is practicable to do so the best treatment for this disease is to cut out and burn the infected portions and paint the wounds with thick Bordeaux mixture.

\*  
Plum Tree Not Fruiting

G. W. A., Frederick, Iowa.—From the meager description which you give of the behavior of your plum tree it is quite out of the question for me to state why it is that your plum tree flowers but does not produce fruit. There are a number of causes that might produce this same result.

your experiment station at Ames, Iowa, and ask for their calendar on spraying, which they will gladly send to you free of charge.

\*  
Work of Spraying Fruit

C. S., Moberly, Mo.—Farmers' Bulletin No. 243 contains a summary of the uses of fungicides for the prevention of diseases of fruits. It should be in the hands of every fruit grower. It can be obtained through your congressman or direct from the United States Department of Agriculture, Washington, D. C.

\*  
Trimming Grapes

R. A. C., Lawrence, Mich.—If you have had no experience with trimming grapes and have three acres to trim, I would suggest that you get some good practical horticulturist to show you about it. Any directions that I could give you in these columns would be entirely too incomplete for you to follow, and in your section you should have no difficulty in finding some good man to advise you. You can well afford to pay him a good price for his labor while so doing.

\*  
Pruning Apple Trees

R. H., New York.—The best time for pruning apple trees is in the latter part of winter or early in the spring before the sap has started in the trees. Pruning after sap has started frequently causes bad wounds. I also think that mild days in winter, when there is no frost in the trees—or even late in the autumn is a good time for pruning apple trees. The foregoing applies to the cutting off of large branches. If it is a case of pruning growth not over two years old, then perhaps June is as good a time as any, since wounds



GATHERING ORANGES IN SOUTHERN CALIFORNIA

you would insert the scions around the edge of the stock, but it would not be necessary to make the groove way into the center of the tree. It should only go in about one half an inch, no matter what the size of the stock.

It is almost impossible to graft branches four inches in diameter and have the unions satisfactory, but by setting several scions around the stock and allowing them all to grow until they crowd one another, and perhaps allowing two of them to reach maturity, the end of the large branch would soon be covered over, but I do not recommend the grafting of branches so large. It is best to use scions of well-matured, stout, straight wood, the same as for any kind of grafting.

\*  
Lemon Tree Injuries

M. J., Lebanon, Ohio.—The specimen of lemon leaves which you sent on are somewhat infested with a soft scale, and I should think it was the common greenhouse scale, which can be readily held in check by washing the leaves with tobacco

In some parts of Iowa and Minnesota one of the most common reasons why plums do not fruit is because they are affected with plum pockets, which causes them to swell up and become hollow and later drop off. I know of some large sections where all the plums have been destroyed for years by this disease, and this may be prevented by spraying the twigs with Bordeaux mixture about two weeks before the buds commence to swell in the spring. Plum trees are often non-productive from the fact that the flowers are not furnished with the right kind of pollen, the varieties grown being those that are not self-fertile. Some varieties of plums are peculiarly subject to this, especially the Miner.

If you will let me know the names of the plums you are growing, perhaps it will throw a little light on the subject. There is no use of your spraying unless you know what you are spraying for, so it will be quite out of the question for me to give you any one formula that would benefit you. It might be well for me to say, however, that you had better write to

made then heal quickly and the tree is not injured. But to remove a large amount of foliage in June is a bad plan, as it hinders very much the growth of the trees. However, do not think that what I have said above indorses heavy pruning for apple trees, for I am very much opposed to it, and think that as a rule more apple trees are spoiled from heavy pruning than from the lack of it. Heavy pruning on apple trees generally causes a lot of water sprouts, and is to be avoided.

\*  
Spraying

N. J. Q., Seneca, Ill.—In order to answer intelligently your inquiry as to spraying it will be necessary for you to let me know the trouble you wish to spray for. There is no one spray that is adapted to all the different kinds of fruit trees and different insects and diseases, although the combination of Bordeaux mixture and Paris green comes as near as anything to answering this purpose. However, it might be quite dangerous to use some of this material on plums and peaches.

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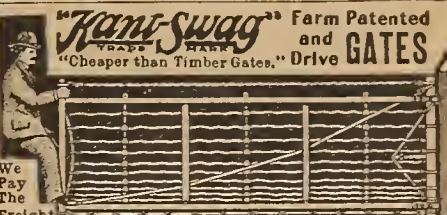
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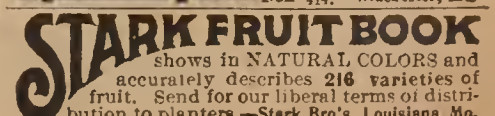
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Dairy Talks by the EMPIRE Dairy Maid—No. 8

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—less likelihood of wear and breakage—which means fewer repairs.

—less trouble in cleaning, which means a saving of time and an improvement of the cream's flavor.

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I haven't room here to explain the details of construction, but if you'll send your name to the manufacturers, tell how many cows you keep and what you do with the milk, they will send you catalogue and some valuable books on dairying. You'll be glad to have them. Please write today, before you forget it. Address

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## Live Stock and Dairy

### Care of the Feed and Brood Sow

THE number of the coming pig crop and their ability to turn the crops of the farm into money depend largely on the feed and care of the brood sow. Feed for the growth and constitutional vigor of the mother and the development of bone and muscle of the young. This requires a food which is composed largely of protein.

In summer we have the ideal conditions for the fall litter; good pasture, a little corn and plenty of exercise for the sow while filling up on grass. In winter, when probably nine tenths of the pig crop is in embryo, we must substitute with grains, roots or ensilage, milk and hay.

The ration I feed is a slop consisting of shorts and oilmeal, one sixth to one eighth of the latter mixed twelve hours ahead of feeding time to the consistency of thick cream, or so it will readily pour into the trough. Salt to taste. Skim milk, dishwater and buttermilk may be added. Feed this twice a day, warmed a little if in very cold weather, about one gallon to each sow.

I feed corn twice a day, three to five ears each. If the sows seem to be taking on too much fat I reduce the corn, sometimes to one ear. The brood sow must have exercise. To induce it in cold weather when they like to stay in the house, I throw them a few ears of corn, not enough to "go around," and the sows "go around" after each other to get a bite at the corn.

Hogs in winter will consume quite a lot of good clover hay. Mangel beets are good, and raw potatoes are relished, and help as a change of diet. I also feed dry oats occasionally. Sows should have water as often as they will drink.

E. G. BROCKWAY.

### Rye for Pigs

I had forty late fall pigs, and barely enough corn to run them through the winter. I also had a fifteen-acre field of rye which I had seeded to clover in February. About the first of May I turned the forty pigs in the rye, which was about two to three inches high at that time. They ate the rye while it was young and tender, but as it grew up they left it for the young clover. Later on the rye commenced to ripen and they commenced to feed on it again. They had no corn until the new crop was ready to feed, which was about the last of August. They had plenty of running water, and salt twice a week. I sold them September 24th, average weight, 208 pounds. I never fed hogs that did better, gained faster or made as much clear money. As raising and feeding hogs is my main line I cannot afford to be without a field of rye. If sown in the right time it affords plenty of early and late pasture, also makes a good nurse crop for clover, and takes the place of high-priced feed necessary to raise fall and winter pigs profitably.

S. R. SNOWDEN.

### Saving Chilled Pigs

In talking with a farmer the other day I learned a lesson which would have meant dollars to me if I had but known it sooner.

This farmer had a sow farrow on a very cold night, and after seeing the pigs apparently on the highway to "hogdom" he left them, only to find in the morning that they had strayed away from their mother and became chilled. Procuring a washtub of quite warm water, he placed the apparently lifeless little pigs in it, seeing that their noses were kept above water. It was thirty minutes before the first one gave a sign of life. However, they all recovered and "lived happily ever after."

F. S.

### To Prevent Cattle Crawling Through Wire Fences

Take three fourths of a trace chain and loop it over the horns, so as to hang down about two or three feet. When the cow starts through the wires the links catch on the barbs, which pulls the head. It may be necessary to fasten a small block on lower end.

B. E. ISBELL.

### The Hog for Profit

The hog for profit is one that is kept growing from the day that he is farrowed until he is six or seven months old, when he should weigh one hundred and eighty to two hundred and twenty-five pounds. The pigs should have an inclosure not accessible to the sow, in which they should have a trough with a little skimmed milk, warmed at first. They will learn to drink

when not more than three or four weeks old. Do not leave any in the trough from one feed till the next. For a litter of eight or nine one quart a day is plenty to begin with. In a few days you can add a small handful of middlings. The pigs should be watched closely at this time, so as not to overfeed them and cause them to scour. A pig that is attacked with scours at this time of life has a back-set that he will never get over.

Fed in this way they can be weaned at seven weeks, but do not pen them up in some small pen when you wean them. Let them have the range of a field if nothing better than an old wheat stubble. Pigs fed in this way will not miss their dam, and will be ready for that nice clover field in which you can almost see them grow.

Of course you must keep increasing the slops by adding middlings, ground oats and corn. Thicken the slop to about the consistency of cream, and give about one pint to one quart a day for each pig, according to age, along with one or two ears of corn, until about five months old, when they should have all the corn they can eat for about six weeks.

R. A. B.

### Raising Colts

If you were to ask me how the average farmer could make a little more money and make it more easily, I would say by keeping a couple of good mares and trying to have a couple of good colts to sell each year. If given good care a pair of good mares will do this and almost as much work.

Of course, it takes a little time and extra choring to raise a colt, but you will put in these extra moments when you hardly know it. One hundred dollars clear in the fall will be quite a help. A good pair of colts will bring that amount, and it is just as easy to raise good colts as poor ones if you get good mares. And then a man who is not able to work hard can raise colts and have an income from the little work which he can do.

It seems that all things are subject to habit, and if some farmers are not in the habit of raising colts, it is hard for them to get into it. They get into the habit of buying horses instead of raising them.

E. T. BURKHOLDER.

### What to Feed Ewes

When I first began to attend sheep I fed them shelled corn and coarse timothy hay. But I soon found out that they did not do well on that. The lambs would be small and weak when they came, and I would lose a number of them every year. And many times the ewes would not own their lambs. It was rarely that a ewe had twins, and when she did she could hardly raise them.

I began feeding them ground corn, oats and bran, equal parts, and clover hay instead of timothy. When I did not have the clover hay I used redtop and ragweed. Sheep are very fond of ragweed hay and do well on it. But the best hay I have ever found for ewes is the second crop of clover. I have tried crushing the corn and cob, but that is not good for them. The cobs will clog in the stomach and give them the colic. I had several get sick before I found out what was the matter. As soon as I quit feeding them the crushed cob meal I had no more trouble.

After I began feeding clover hay instead of timothy, and using bran and oats mixed with the corn, I had big, stout lambs and often twins. The ewes would give plenty of milk and could raise two better than they used to raise one. And now I have no trouble in getting the ewes to own their lambs. We have had ewes that would take and raise another ewe's lamb when theirs would die. Besides raising fifty per cent better lambs the bran and oats make them shear better. Where we used to shear only about five pounds of wool per head now we shear from eight and three fourths to nine pounds on an average per head.

L. O. H.

### How to Raise Hogs Successfully

Sow four acres of ground in clover or alfalfa. Have the four acres in two lots, so that when the hogs are in one lot the clover can grow up in the other. Then change them alternately from one lot to the other.

Any farmer can make more in this way on twenty or thirty head of hogs than seventy-five or one hundred head running at large. You have the hogs where they can have all the waste given them. Get good Poland Chinas and sell them when six months old.

A. M.

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## Live Stock and Dairy

### Colorado Lamb Feeding

The business of fattening lambs has proven to be so profitable in northern Colorado that the farmers in the Fort Collins district, comprising parts of Larimer, Weld and Fort Morgan counties, have in their pens this season something over a million head, making this district the greatest in the world as lamb-feeding headquarters. This industry was started fifteen years ago by a farmer who had bought 1,500 head of lambs on the Wyoming range for the purpose of shipping them to the Eastern market. A blizzard caused him to unload at Fort Collins and put his lambs on feed. They thrived so well and so cheaply on corn and alfalfa hay that his neighbors began feeding lambs the following year. The business proved so profitable that the number on feed in this section has increased gradually until in point of numbers fed the Fort Collins district is now the greatest in the world.

The farmers in the Fort Collins district contract with the flock masters on the New Mexico and Wyoming ranges early in the summer months, usually May and June, for their lambs. These lambs are shipped to the "river" markets—St. Joe, Kansas City and Chicago—from the range, with stop-over privileges when the Fort Collins country is reached. Here the lambs are unloaded and driven to the feeding pens, which are to be found now on practically every farm. These pens are located on well-drained sites and are well supplied with an abundance of pure water. The lambs at the start are given all the alfalfa hay they will eat. Different grains have been fed, but at present, after many trials and experiments, most of the feeders use only corn and alfalfa. Alfalfa, the proteid, combining with corn, the carbohydrate, to form a well-balanced ration. After the lambs have been on alfalfa hay for about three weeks, corn feeding is commenced with a half ounce per head daily which is increased gradually until they are getting a pound each at the end of a month. An average increase in the weight of lambs of ten pounds per head per month, or about forty pounds for the feeding period, is considered a fair record, making the lambs weigh in the neighborhood of ninety pounds when they reach the market.

The lamb feeders do not expect to make a profit on the increased weight of their

The pulp remaining from the beet after the sugar has been extracted is considered of great value as a ration, especially for old ewes with teeth worn too much to eat grain readily. Old ewes fatten readily in six weeks on a ration of beet pulp and alfalfa hay. Pulp is fed to lambs as a succulent food, the dry ration of corn and alfalfa appearing to be greatly benefited by the juicy pulp.

The past year was a most dangerous one to feeders, and had not the winter been a phenomenally mild one, heavy losses would have been made by them owing to the high prices paid on the ranges for lambs. The mild winter, however, enabled the feeders to fatten their lambs with much less grain and in a great deal shorter period, which of course cut down the expense. The business this year will average possibly a profit of fifty cents on each lamb fed. Last year, and, in fact, the five previous seasons, the lambs have returned from fifty cents to two dollars per head profit. Few farmers feed less than five hundred sheep or lambs, most of them over one thousand head, and a few feed ten thousand.

A. D. MILLIGAN.

### Pigs in Chicken Lot

A neighbor said to me, "My pigs get up in the morning and run around over the lot before they eat their corn. Now, what do you suppose they are doing?"

They are only looking after the manure that was dropped by the chickens during the night.

Now the first thing to be done is to remove the pigs to another lot. If it be in the spring, put them in a field of clover. But if this cannot be had, you must place them where you can feed them good slops and some corn. By all means do not try to starve the pigs to a sound appetite.

The same results will be found with the brood sow if kept in this lot.

E. W. DOUGLAS.

### The Value of a Well-Bred and Trained Dog

I am well aware of the fact that there are many dogs that seem to be worthless, and yet if we were to trace one of these dogs to its owner and get the history of the dog, we would find that the owner would part with almost anything about



The way they feed a million lambs in the famous Fort Collins district, now the greatest lamb-feeding region in the world. Good drainage, dry climate, and an abundance of alfalfa hay combine to make lamb feeding for the "river markets" profitable, and consequently popular with the farmers of northern Colorado.

lambs made in their feeding pens, but count their profit as the increase in price of fat stuff marketed over the feeders bought on the ranges, the original weight being the basis of calculation. The increased weight made in the pens usually costs as much as it brings when sold.

The grain is fed in low troughs in a separate inclosure, which is close both to the corn bins and to the lots where the sheep are kept. The sheep when fed are driven into the feeding pen and allowed to remain there about ten minutes. Alfalfa is kept in small racks in the pens where the sheep may get at it day or night.

The construction of seven sugar factories in this section in the past four years has aided the sheep feeders greatly. The tops of the beets in the fields are considered to be the most nutritious single feed known, appearing to contain within themselves a well-balanced ration. Farmers now receive three dollars per acre for the privilege of allowing sheep to range their fields after the beet crop has been harvested.

the place in preference to letting the so-called worthless cur go.

I am a breeder of thoroughbred Delaine sheep and also of Scotch collie dogs. I have found homes for my dogs as well as my sheep in many different parts of the country. Up to the present time I have the first one to find that would part with his collie.

I can truthfully say that I have never been annoyed nearly as much with the common cur that may be kept by my neighbors as I have been with the tax placed on our animals.

I think it better to advocate the benefit of keeping a better breed of animals of all classes than to undertake to place a higher tax, compelling the people to dispose of their animals, simply because they are considered a nuisance by a few.

There are many sheep raised in Ohio, and there are also many dog-fanciers, but we have laws in Ohio whereby the owner of sheep killed by dogs gets paid for them.

J. R. PHILLIPS.

# BUYING A CREAM SEPARATOR

Thousands of dairy farmers are buying a Cream Separator this spring. The purchase of a separator is a most important investment. Great care should be taken to make no mistake.

The Cream Separator is much different from any other farm machine. It either wastes or makes money twice every day in the year, and it may last from two to twenty years, according to the make of machine.

There is a big difference between the DE LAVAL and other Cream Separators, notwithstanding much the same claims are made for all "on paper," and some of the biggest claims for the poorest and trashiest machines.

DE LAVAL machines skim cleanest, have the biggest capacities, do the best work under every-day use conditions, produce the best cream and make the best butter, so that there is easily a difference of from \$50.-to \$150.- per year between the benefits and savings of a DE LAVAL machine and a poor one.

Then DE LAVAL machines are made up of much the best material and workmanship and last at least twenty years, with small cost for repairs, while other machines last only from two to ten years and cost a great deal meanwhile.

If the buyer wishes to be guided by the best authority and the best experience of others he must purchase a DE LAVAL machine, and he can surely make no mistake in doing so.

98% of the creameries of the world, which have been using Cream Separators for twenty-five years, now use DE LAVAL machines. Almost every prominent dairy user does so. 700,000 farmers scattered all over the world, or more than ten times all others combined, do so. Every important Exposition for twenty-five years, ending with St. Louis in 1904, has granted the Highest Honors to the DE LAVAL machines.

DE LAVAL machines prove their own superiority. There are agents in every locality whose business it is to supply machines in this way and who are glad of the opportunity to do so. They set them and start the user right, which means a great deal in the profitable and satisfactory use of a separator.

While there is an ample discount for cash, if the user can't conveniently buy in that way he can do so on such liberal terms that the machine actually pays for itself by its own savings.

There is no reason why every farmer having cream to separate should not buy a separator this year, and there is surely overwhelming reason why it should be a DE LAVAL.

A new DE LAVAL catalog to be had for the asking will interest everyone thinking of a separator.

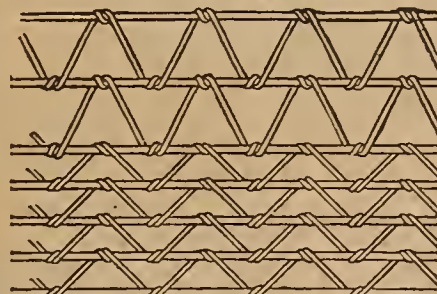
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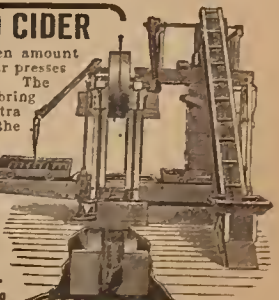
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## Homemade Contrivances

I WANT to tell the farmers of some homemade contrivances I use on my place that I think are a great help to me.

First is a land drag, clod crusher or leveler. Take three planks two by ten the length you may want your drag; place these together, shingle fashion, exposing say five inches; nail down good and strong; bore a hole two or three feet from each end and pass a No. 9 wire ten or twelve feet long through these holes to pull by.

For moving from one field to another, make a hole in the end of center plank and pass a short piece of wire through this. By this means you can convey it from one place to another on a very narrow turn-row. Another important thing is the riding plank. This consists of a board one and one half or two by twelve inches, six feet long, which should be bolted on near the center of last plank.

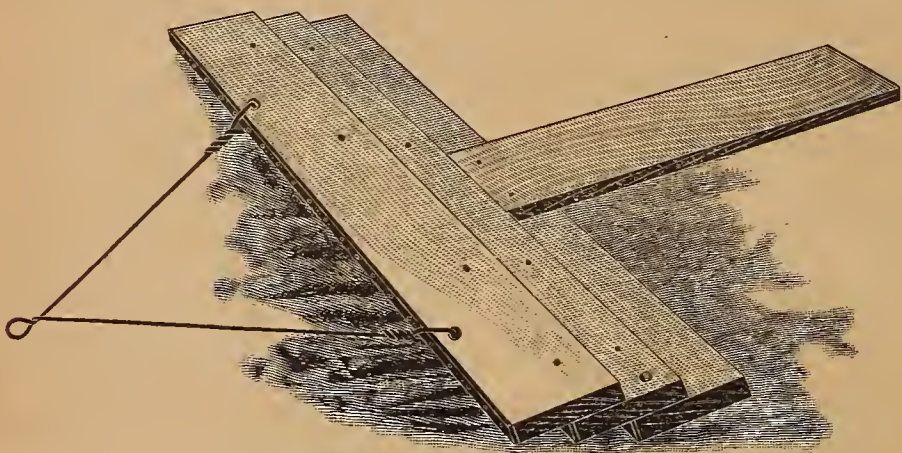
This machine should be run with the cutting, or exposed edges forward; that is what does the work. These edges should be faced with hoop iron or something of the kind to keep them from getting dull. Now, who ever heard of a drag getting dull? But it is a fact, and they are no good after the edges become rounded.

I saw a farmer the other day dragging a log twelve or sixteen inches in diameter and that many feet in length. It is hardly worth while to say he was wasting time and a whole lot of mule strength, for he had four hitched to it. I told him of my drag, and he said he would go at once and make one.

Talk about harrows, they are mighty fine, in ground that is already in good shape, but for rough, cloddy ground they are not in it.

Let me tell you how to always have your land in good shape to plant any "time of the moon." Keep this drag on your turnrow, break land till, say, eleven-forty-five, run drag till twelve, and you have that in shape. In the evening drag what you have broken after noon. Now the harrow might do some good ahead of the planter if you are ready to plant at once. I send a sketch of this drag.

Another thing I want to mention is a device for putting under weeds and grass in plowing land. I find two trace chains do the work for me all right. To adjust, take a short piece of cotton line (I say cotton because it is softer than hemp) and run it through the rings; tie this to the beam of your plow just forward of the



CLOD CRUSHER AND LAND LEVELER

stock. Now twist the chains a little and tie a knot in them that will fall just in front of the mold-board, and hook the other ends to the single or double-tree. Now don't be satisfied if these chains halfway do the work, but change them till you get them just right, and you will wonder why somebody didn't tell you about this sooner. I can cover up any weeds with these chains, unless they are longer than my rows.

O. M. DORSEY.

## Field Culture of the Squash

The farmer who can successfully raise a good crop of squashes upon his farm will find that he has a crop that will bring in ready money at time of harvesting, and a very remunerative one as well. The squash, where it is given the opportunity for proper development, is very prolific, and a few vines will suffice to grow a good supply for quite a large family.

Those of the Hubbard family are the most readily marketed; however, the marrow squashes which have been introduced in late years are quite as valuable and just as fine flavor, and being of an attractive orange color are as easily marketed as the Hubbard. They have one advantage, at least in our experience; the plants seem more hardy and are less damaged by bugs.

Here upon the forty-first parallel it is our usual custom not to plant our crop of squashes until the fifteenth to the twentieth of June, as the soil is then warmed up properly and the seed will germinate and grow rapidly.

The soil is broken just previous to

planting; and we do not want it the least bit wet, for mellowness of soil is a great essential.

The field is marked off into checks three and one half feet by five feet with a single shovel plow, furrowing very deeply. At each intersection a large shovelful of finely composted manure, a mixture of stable, poultry and hoghouse manure being best, is scattered into the intended hill. This compost is drawn along the rows in a sled, or upon the low-down wagon, and deposited just where needed.

The field is again harrowed lengthwise with a light harrow which drifts loose earth over the manure, and followed by a man and garden rake to distribute the hill evenly. Plant about a dozen seeds in each hill. About the time we notice them breaking through the first cultivation is given, just heavy enough to eradicate the starting weeds and loosen the earth about the young plants. The garden rake can be employed again in loosening the earth about the hills.

Cultivation must be given quite often, and each time the loose dirt thrown toward the hills, and worked up about the plants. By planting this late in June we escape the striped squash bug to some extent, and by keeping the soil well worked about the hills little injury can be done by them to the stalk. We always sprinkle with wood-ashes, soot and white lime in order to keep them in check.

We cultivate until the vines are threatened injury from our work. By this time they will shade the soil sufficiently to keep weeds in check and the soil moist. The hills are thinned out during cultivation to not over two to three strong plants in each hill. At the last cultivation we use the hoe and draw a mound of loose earth about the hill and cover up the stalk and vines in the immediate vicinity, in order that the squash borer cannot attack the root stalk and lay the egg which produces the root maggot that is so fatal to many squash-growing plantations. Many times, if the root stalk be injured from this pest, the covered vine will propagate rootlets and continue to grow and produce a crop even when the tap-root is destroyed.

The worst enemy we really have to com-

bat is the large gray squash or stink-bug, which lays its eggs in clusters on the under side of the leaves, hatching out their young to prey upon the growing vines.

The most successful remedy we have discovered is picking them off while they are making their appearance, and plucking their eggs from the leaves. This can be greatly facilitated by scattering a quantity of large chips or small boards about over the patch and near the hills. These bugs will be found congregated under these chips in the mornings and can be easily gathered into a light tin pail containing about a pint of water and kerosene equal parts, which will kill them immediately.

If one wants fine, large specimens for special occasions, it is best to allow only one plant in the hill. Under special circumstances the squash becomes very prolific, and we have observed plants that produced as many as twenty-two well-matured specimens and of good quality. Squashes are greatly influenced in flavor by special fertilization, and especially in applications of lime to the soil. If really good-flavored fruit be desired, the addition of lime must be noted.

GEO. W. BROWN.

## Crows on the Farm

One fine day more than a dozen years ago, when visiting my brother, we were sitting on the orchard fence enjoying the sweet-scented apple blossoms and a rest. While thus enjoying ourselves a crow flew over us, cawing and craning his neck to the right and left as if in search of

something. My brother noticed the bird, and suddenly changing the subject of our conversation, said, "I fear I will have to shoot all the crows in the neighborhood, as they have learned to steal the eggs even from the nests close to the house and in the outer coops, and next they will take the chicks. They have been stealing for some time, and are becoming bolder, though if I have the gun they appear to smell it and keep out of reach."

I remarked that the crow destroyed great numbers of field mice as well as great quantities of destructive insects and was a very useful bird, and it would be too bad to kill all in the neighborhood.

"What, then, would you do?"

Having in mind some experience in dealing with thieving cats, I suggested that he get some strychnine and an egg and kill only the guilty. Having a small paper of strychnine hid away in the old clock, my brother was not long in making a small opening into an egg and loading it with poison. He then put the egg in a clear space in the adjoining field close by the orchard. We did not wait many minutes until the crow again soared over the orchard, picked up the egg and with a triumphant caw flew to the top of a tall tree near by. There he ate the egg and in a few minutes more dropped to the ground dead. As no more eggs were taken the conclusion was reasonable that the better plan was to poison the one culprit than shoot many innocent, and perhaps leave the guilty escape.

I. H. MAYER.

## Handling Rye

J. F. M., West Sunbury, Pa., writes: "In a last-winter's number of FARM AND FIRESIDE you stated you 'had acres of growing rye—rye for soiling, rye for hay and rye for straw,' and I conclude you can answer me some questions about rye.

"1. How near maturity should rye get before it is cut for hay?

"2. How does rye hay compare with timothy for quality, and is it readily eaten by stock?

"3. What can I use for soiling immediately after corn is harvested and before hard-freezing weather begins?

"4. If I should sow rye about the middle of July or first of August would it make roughage for feed in October?

"5. I have part of a field now in rye which will be cut for hay. I do not want to plow the field till fall, at which time I would like to plow a good crop under. If I sow crimson clover on this field when the ground is well opened by frost, and I get a stand, do you think I would have enough growth by fall to turn under?"

1. When the field is seen to be in full blossom. Some stalks bloom earlier, some later. Strike the general bloom—not later.

2. If seeding was heavy so the stalks grow thin and the rye is cut in bloom, and the curing done in windrows and cocks, the feeding value of rye hay is equal to good timothy hay, and surpasses a great deal of the timothy hay that is harvested. I feed rye hay to cows, young stock and horses, and they all eat it readily. I do not, however, regard the best rye hay quite equal to the best timothy hay—early cut, cured in cock.

3. Corn is usually the last crop we depend on for soiling, but there are often late growths of clover and mixed grasses that may be cut and fed green even after the frost has dried up the saps in the corn families. Sorghum, cut before frost and carefully shocked, will prolong the green feeding season beyond any other crop, as it retains its succulence long into the winter, and for feeding at any season of its growth is highly valuable. Drill it thickly in rows to admit of cultivation and let in the sunshine. Second-crop clover hay that has been carefully cured will be found almost equal to a very late green crop. Then there are turnips, pumpkins and sugar beets, any of which will add succulence, relish and quality to the fall and winter ration.

4. It will grow large enough for excellent pasturage, but not enough for cutting.

5. I have never known a seeding of crimson clover at the time you propose to be made in Pennsylvania, and I think it would be a waste of seed. We sow crimson clover in July or August, usually in some growing cultivated crop, such as corn or tomatoes. I have sown it in July with buckwheat and harvested a crop of the latter in September and had a fine crop of the clover the next spring. Red clover can be sown in the rye this spring as proposed, and under favorable conditions would probably make enough growth by time of fall plowing to pay for the seed,

but I should not expect much, if any, more benefit from such a young growth of clover being plowed under than might be had from plowing down the crop of weeds that may be expected to come if the clover is not sown.

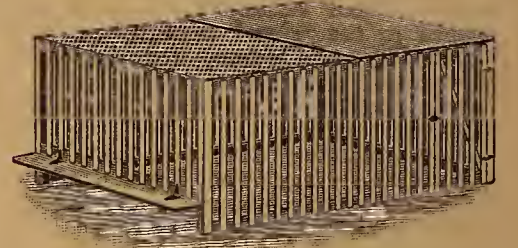
If the rye stubble can be worked up into a fine seed bed with disk or other harrow, so about a bushel of mixed cowpeas per acre can be drilled in with an ordinary grain drill, and the resulting crop be plowed under about a month before fall grain seeding—the land being harrowed at least once a week for that month—it will be found that the utmost has been done toward soil improvement most cheaply.

This advice is in line with the plans of the correspondent. A better procedure would be to plow the land after the harvesting of the rye, harrow fine and sow the cowpeas, dressing at time of sowing with a moderate application of phosphoric acid and potash, cutting the crop for hay or soiling feeding and prepare the pea stubble with disk for fall grain seeding.

W. F. McSPARRAN.

## Coop for Turkey Hen and Brood

This coop may be of any preferred size, but not smaller than four by six feet, thirty inches high. The posts may be of two-by-three-inch strips, with one-by-two-inch strips fastened thereto, to which lath or wire may be nailed, as pre-



ferred. The illustration shows the sides of cut lath, the top being of wire. Boards or tarred paper may be used as a covering over a portion of the coop, as a protection against sudden showers, under which portion a box open at one end only to the coop, as the turkeys should be on the ground during the day.

## Potato Culture

Perhaps no plant needs a good, rich soil or pays for it better than the "Irish" potato. And yet how many good farmers are negligent in the selection and preparation of their potato ground.

Select your best ground, preferably a rich, sandy loam, which should be well drained. During the month of October haul enough good straw manure to cover the entire ground evenly. Plow the ground deep, being very careful to turn all of the straw under; work the surface very fine, and drill rye with a little good commercial fertilizer. During the next spring, say from the first to the fifteenth of April, or any time that the soil is in good condition to plow, turn this crop of rye under by plowing very deep. Pulverize the ground very fine, then furrow your ground deep, placing the rows about three and one half feet apart.

The next important step is in selecting good seed. The kind is not so important, as we have many good varieties, but be careful to get some variety which is not infected with disease peculiar to the potato. Select your seed from the medium-sized potatoes, being very careful to have nice smooth potatoes, free from bites of insects. These potatoes you can cut into pieces, each having no less than two good strong eyes, and cut the potato lengthwise. You should not make your pieces too small, as the young plant is fed from this piece until it has plenty of roots to feed on the plant food in the soil. Place your pieces in the row from twelve to fifteen inches apart, then cover with a thin layer of earth and sprinkle from four hundred to six hundred pounds of commercial fertilizer, rich in potash, per acre over the surface in furrow. Cover this with two or three inches of ground, leaving the remaining ground lay.

When you see the plant coming through the ground, say from one to two inches high, take a spike-tooth harrow and harrow the ground thoroughly, letting the horses walk between the rows. In this way you destroy many weeds and put your ground in excellent condition for the growth of the potato plant. After this working you should cultivate your potatoes with a small-shoveled cultivator, working them as often as needed, being governed by the condition of the soil and growth of the grass and weeds. You will find in many soils, that the ground will be loose and easy to work, caused by the humus in the soil, by the rye turned under in the spring. You do not need to hill your potatoes very high, but you should throw enough ground to the stalks to cover all of the new potatoes well, and to protect them from chickens. T.-J. BAKER.



## Poultry Raising

By P. H. JACOBS

### The Young Turkeys

**A**LTHOUGH the FARM AND FIRESIDE has endeavored to advise its readers every spring regarding the management of young turkeys, it is probable that more inquiries come in during the year for information as to methods of management of turkeys than of any other subject discussed in the poultry department. The great interest manifested in that direction prompts for this issue an article of more than the usual length in order to enter into all the details of management.

While it is customary to put turkey eggs under chicken hens, and frequently with success in hatching, yet the turkey hen cannot be equaled as a mother. Every attention is given to the work of hatching on her part, and when the chicks come out she is careful and watchful. Naturally she is disposed to go off on a long ramble, but this is due to her feeding over a large area, searching for the most suitable foods, rather than to stray away with her brood.

The best time to have the turkeys hatch is in May, for the conditions are then more favorable, but as the work of incubation requires about four weeks, and the hens do not always begin laying in April, many of the young ones are not out until June. It is the practice with some farmers to place the first eggs of the season under chicken hens, giving the later eggs to the turkey hens, as the turkey will submit to be robbed of her eggs and continue to lay; in fact, she is a very patient bird, and will allow of considerable interference.

While the turkey is a very tender bird when young, it is, on the contrary, hardy and vigorous when matured, being fairly free from disease, compared with some varieties of poultry, but when attacked by such diseases as roup, cholera, or blackhead, it usually refuses medicine and food

gradually regulate the supply according to circumstances. As the demand for food will increase, it is not necessary to continue the egg, curds and bread, but give wheat, cracked corn, cracked beans, millet seed or anything that they will eat. They will soon be able to get insects if allowed to forage. The bread and curds are always of advantage, and at any time, however.

Never use stale eggs, or any food that is not wholesome, and be sure to clean off the feeding board after each meal, as decaying food may cause disease. Bonemeal may be kept where they can help themselves.

Young turkeys cannot be closely confined, but they should at all times be protected from dampness. After they are a week old, but only during very dry and mild weather, the coop in which the mother is confined should be opened, so as to allow the chicks outside from about nine o'clock to four o'clock, and they should be fastened up for the night after their third meal. The floor of the coop must be on dry ground, and the coop may be moved whenever necessary, but, as mentioned, under no circumstances must the young turkeys be compelled to sleep on damp ground, as the least dampness may be fatal.

If the weather becomes warm and dry the mother may also be allowed outside, but should not go far from the coop for a while, and as young turkeys grow rapidly they soon become large enough to be allowed considerable foraging.

During growth, when young, they produce quill feathers very rapidly, beginning when but three or four days old. The production of these quill feathers weakens the system, and may cause the young turkeys to droop. By cutting off the ends of these feathers, their growth is partly checked. If pulled out they may cause



OUT ON DRESS PARADE

and quickly succumb. When the conditions are favorable, however, such as liberty on the fields and shelter at night, but little assistance is required except during the winter season, as the turkey can secure an abundance of food if given the opportunity for so doing. As is well known, turkeys are disposed to roost on the tree limbs, or on some elevated pole or other preferred place, as a natural desire to be safe from enemies on the ground, but if reared in a manner so as to teach them to go under shelter at night they will do so, an open shed, protected on the south side with wire netting, and having a high roost, being sufficient, as it is not necessary to closely confine them, but they should be well protected from cold winds.

A hard-boiled egg, chopped fine, and given them on a clean board, should be sufficient for about twenty young turkeys, the first day of feeding. The next two days the chopped egg, with finely chopped onion tops also, should be given twice a day. Then feed three times a day on chopped eggs, onion tops, chopped fine. They may be given, in addition, stale bread mixed with milk curds, only a little, at first, gradually increasing the supply of bread and curds as the turkeys grow. Do not give the food in a sloppy condition. The bread and curds should be given at noon. An excellent mess is two pounds of cornmeal, one pound of bran, one ounce of linseed meal, and two eggs, mixed with milk, and cooked as bread, which may be given with milk curds and chopped onions, three times a day, when two weeks old, but the farmer must observe them and

pain, but this should be done if trimming them does not mitigate the difficulty.

For a single brood the coop may be about four by six feet, or larger if preferred, and thirty inches high, made of lath or wire fastened to posts, the lower portion being arranged to allow the chicks to run outside, when necessary. The hen may also be given outside privilege should the conditions permit. The coop must be placed under shelter when there are indications of rain, or be covered, as a protection, with tarred paper roof.

When they reach the age of about twelve weeks they will then be hardy and able to care for themselves. They pass through a stage known as "shooting the red," which is a critical period with them, and they then settle among themselves which is to be the leader. They will meet nearly all their difficulties before they are twelve weeks old, and the farmer should then have but little care with them.

Unless provided with an open shed and roost, to which they can resort if not allowed elsewhere, they will take to the tree as soon as they can fly, and the constant alighting from the high limbs to the ground may cause lameness, which is a frequent ailment with some flocks, the difficulty being ascribed to disease.

A few rules, in condensed form, will not be out of place regarding the management of young turkeys: 1. Be careful to give no food until the young turkeys are at least forty-eight hours old. 2. Dampness must be avoided, as it is seldom that young turkeys survive exposure. 3. The best foods,

[CONCLUDED ON PAGE 10]

# RAPID

# GROWTH



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## The Young Turkeys

(CONTINUED FROM PAGE 9)

when they are very young, are hard-boiled eggs, stale bread (dipped in fresh milk, the surplus squeezed out), millet seed, and milk curds. 4. Do not keep them closely confined longer than is actually necessary. 5. Carefully watch for lice; when a young turkey appears sleepy, or droopy, look for the large body lice, especially on the heads. 6. Never use yearling parents. 7. A lawn that has been closely mowed is the best place for very young turkeys. 8. Do not overfeed, but give a variety, and see that they have enough, especially with very young ones, as they grow rapidly and also produce feathers very rapidly. 9. Protect from rats, cats and other enemies. 10. Always look after them as a last duty at night, and feed early in the morning.

Two-year-old hens and three-year-old gobblers should be preferred for breeding purposes. It is best not to use yearlings at all. The several breeds of turkeys have not improved in vigor and hardiness during the past two decades, owing to using parents that were yearlings, and in-breeding, which facts should not be overlooked, as success with young turkeys depends largely upon the vigor of their parents. If young turkeys hatch out weak there is an end to them, so far as profit is concerned, as they cannot be reared except with extra care and attention to a degree which renders them too costly.

Before the young turkeys are hatched (about twenty-four hours) put new nest material in the nest, and be sure that no lice exist. This does not apply to the little red mites, but to the large body lice, which will be found on the skin of the head of the mother hen, under the wings, around the vent, or on other portions of the body. They leave the mother hen as soon as her chicks are hatched and go to them. Some kinds of lice are so large and voracious that a single louse may annoy a chick to such an extent as to cause its death by exhausting it, by preventing rest. The best precaution is to frequently examine the hen, dusting fresh Dalmatian insect powder well into her feathers, and rubbing one or two drops of melted lard on the skin of the head and neck. Use grease cautiously, as it may do harm. Not more than two drops should be applied at any time to a chick. It is safe to claim that three fourths of the deaths of young turkeys are due to the large body lice. Get the best insect powder, and dust both hen and chicks well, holding their heads down if necessary, before placing them into their coop just after hatching.

Advice regarding what to do when the young turkeys are hatched may be valuable, but the object of this article is also to attract attention to two important matters which may be essential to success. The first is for the farmer to be patient and not feed the young turkeys until they are at least forty-eight hours old, and even three days may be better. They come into the world well provided with a stored supply of food, are not hungry, and their digestive organs are not ready for food. Give no water during that time, and keep the hen and brood under shelter.

Water should never be given young turkeys in a manner that may allow them to become wet. Have a fountain that will permit them to reach the water with their beaks only, without getting their feet into the water, or water on their bodies.

## Killing Sassafras by Cultivation

I have noticed several inquiries in leading journals for a practical method for killing sassafras, and the editors, who evidently never had any experience with sassafras, invariably recommend thorough cultivation.

I have had experience with this pest all my life, and the more you cultivate the worse the sassafras sprout grows. Of course, by cultivation the sprouts may be kept down so as not to seriously injure the crop, but as soon as the land is sown to grass or allowed to rest the sassafras sprouts will come as thick as ever. They cannot be killed out permanently by cultivation, since the roots will sprout and spread year after year.

The sassafras can be killed by hacking them down and pasturing without allowing the roots to be broken or the large ones may be killed by girdling them and allowing the stock to keep the sprouts bit off. Cattle and sheep like to browse the sassafras sprouts, and if they are pastured for a few years, the roots will die and the land be rid of them. A. J. LEGG.

## Willow Fence-Posts

Many farmers do not realize the value of our common willow as a fence-post timber. If they are cut during the month of December or January, when there is very little sap in the tree, they will last from eight to ten years. This is cheaper than to pay twenty-two to twenty-four cents apiece for cedar, which lasts twenty years. LEONARD GRAPER.

## Farmers' Correspondence Club

## To Kill Burdocks

I go through the garden with a little squirt can of kerosene oil, cut off the dock with a spade and then apply a generous squirt of oil. The root rots in a very short time. F. P. MOORE.

## Success with Muskmelons

We have adopted this mode of culture with muskmelons, and find that it brings about perfect results. First, the field is plowed and well harrowed, after which we dig holes two feet across and one foot deep, into each one of which we put two shovelfuls of well-rotted manure from the cowyard. After treading this firmly down the hole is filled level full with soil taken from directly under a blue-grass sod.

Here is the secret of success in melon culture. The soil is so generously filled with decayed matter, or humus, that the melons can't help but thrive in it. After firming the soil well in the hill we plant the seed one inch deep. If the weather is at all dry a flat board is laid over each hill, and this trodden upon. This will firm the soil around the seed and the dry weather can do no injury.

Shallow culture only is given the young plants. After the vines have attained a growth of two feet the tips of each vine can be pinched out.

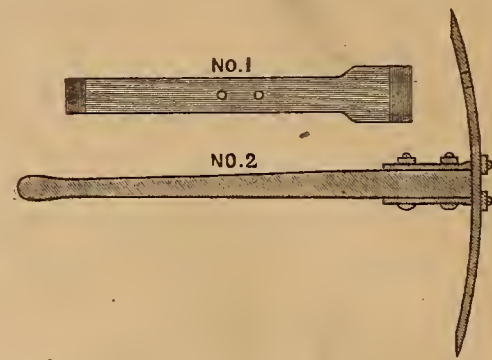
When the vines are four feet in length all cultivation should cease. Only hand picking of weeds.

To keep the vines free from insects sprinkle them with air-slacked lime early in the morning while the dew is still upon them. S. E. B.

## A Spring Grub Hoe

I send you a sketch of a grub hoe made from an old buggy spring. For working among strawberries and for common hoeing make the blade of stock about ten inches long, one and one half inches wide and one fourth of an inch thick. For heavy work make the blade eighteen inches long of stock three inches wide and three eighths of an inch thick.

No. 1 shows the flat of the blade with one end upset and the other end narrow.



No. 2 gives a side view of the hoe complete. To fasten the hoe to the handle I use two straps with three-eighths-inch tops for the light size, and one-half-inch for the heavy. The straps are fastened to the handle with five-sixteenths-inch machine bolts, as shown in No. 2. J. H. JENSEN.

## How to Grow Pumpkins

I have about an acre of ground close to my chicken house on which I could not raise anything. One year ago last summer I planted it to pumpkins, putting the hills about six feet apart each way. Then I plowed them just like corn, until they began to run, and then let them alone. In the fall I gathered an abundance of pumpkins; some of them weighed from sixty to seventy pounds. A. A. THOMPSON.

## Celery Culture

I have always had fine success with celery, but never succeeded so well as last year. Between two rows of peach trees twenty feet apart was a small patch of ground on which was thrown all the ashes, both coal and wood, during the winter.

In the spring the ground was plowed very deep, and on the fifteenth of May was plowed again and harrowed well. The celery patch was then laid off in rows three feet apart. The furrows were made with the hoe about three inches deep. The plants were set every three inches, and afterward thinned to six inches.

The plants were cultivated the same as the other vegetables until they were four or five inches tall, when they were watered about twice a week or every evening in dry weather. I always watered late in the evening, and gave the ground a good hoeing the next morning to prevent it baking around the plants.

I planted the self-bleaching kind, and hilled up as needed until it was banked up a foot or over on each side. The celery grew two and one half feet high, and had large stalks of exceptionally fine flavor and brittleness.

It was entirely free from lice. The first time we had not been troubled with this pest. I attribute this to the presence of the ashes. On a piece of ground fifteen by thirty feet we raised an abundance of celery to last us all winter, to say nothing about the many fine bunches we gave to the neighbors. I write this to show the value of ashes in raising celery.

For winter use, pack in boxes, covering the roots with sand. Keep the sand moist and you will be able to enjoy this delicious and healthful vegetable all winter. FRANK HURST.

## Growing Rutabagas for Table Use

After the ground is plowed and harrowed, I make trenches by throwing a furrow each way, making as many as I wish rows. These trenches I fill with well-rotted manure. To cover this I go along one side and back on the other with the plow, throwing the furrows over the manure and forming a ridge. I smooth the ridge with the garden rake, and drag a chain along the center, making a mark to drop the seed in. I drop four to six seeds about a foot apart, pressing them in the ground as I drop them.

When the weeds appear I run the cultivator between the rows, and as the plants stand on the ridges they are not so easily covered up. As the plants will need thinning out, I will also have plants to fill vacant spaces with. With the plow I throw a furrow toward the plants when they are stronger. This plan does not require much hoeing by hand.

I do the planting about the middle of June, and if the season is favorable the rutabagas will be of fair size, tender and sweet. JOHN MARQUARDT.

## Care of the Orchard

I plow my orchard every year. By plowing it I get a good growth on the young trees, and get rid of a great many pests that would otherwise hinder their growth. I find that orchards not plowed have small apples, and the trees are stunted in their growth. It is a good plan to trim out all broken-down limbs, for insects will hide in the splinters.

When I first began to grow fruits I was confident that I could sow the orchard in grass and reap a fine harvest of both hay and fruit; but I soon found that sowing grass in an orchard, such as blue-grass and timothy, was a bad thing to do. When an orchard is down in grass it makes a good hiding place for curculio, and the fruit is always small; and even clover makes a bad harbor for mice.

I have not a thing in my orchard. I keep it perfectly clean. Just as soon as I harvest the crop, I obtain plenty of help and with common hand-rakes rake everything from under the trees, such as leaves, decayed fruit, etc., and this is hauled away.

I then put a sufficient quantity of wood-ashes around under each tree. Wood-ashes is the best fertilizer I ever used for my orchard. I procure them from my neighbors at fifty cents per load of twenty-five bushels. WM. H. UNDERWOOD.

## Manuring Apple Trees

A neighbor put out an apple orchard a few years ago. He thought stable manure was just the thing, and used it freely around the trees. In four or five years he had but half a dozen trees left.

We put out an orchard about the same time our neighbor put his out. We kept plenty of wood-ashes around our trees and we have not lost a tree. Wood-ashes are good wherever they are put. You can't get too many ashes in the garden. They will loosen the ground and kill the worms. Keep plenty of ashes around the currant bushes and you will have plenty of fruit. M. J.

## Thinning Sweet Corn

Since corn has become such an important crop great care is taken in breeding and selection of seed and the general aim is to have maximum yields of No. 1 quality. The expense necessary to thinning the crop in the field would pay well.

I raise my own seed, select the ears, discard the tip and use every means to secure the best seed; but I find each season that where I can select three stalks from six growing plants I can invariably select

three superior, vigorous stalks; occasionally all of the six will be alike, but usually there is more or less variation.

I thin when about six inches high. Personally I am so well convinced that it pays that I would not think of planting only the desired number of kernels. I give good culture, manure heavily, and must have maximum yields of the best quality.

Seed that looks alike will often show quite a variation in growth, and since it pays to improve the yield wherever possible, to me thinning is a most practical method of improvement. HARRY KEMP.

## Fertilizer for Young Apple Trees

I have noticed the effect of special potato fertilizer on young apple trees, having planted an orchard of young apple trees the same season that my neighbor planted his orchard, and on the same quality of soil, and both cultivated. My own orchard was planted to potatoes every year and my neighbor's planted to berries.

In planting potatoes I used the best grade of potato fertilizer at the time of planting in the rows. Then, when the potatoes were big enough to work, I sowed the fertilizer broadcast before plowing, repeating the application every time potatoes were cultivated.

I never saw trees grow faster or healthier or freer from defects. While my neighbor's trees are healthy, they are not more than half as big as my trees, that were fertilized. A. W. MOLESY.

## Growing of Catalpa Speciosa

I regard four feet apart as much too close. The roots of two-year-old trees, which were set when yearlings, occupy all the ground at this age and do not have room for sufficient expansion to make a continuous good growth. We had a block of a thousand set four feet each way, but finding them too close, removed three fourths of them the next spring. The roots of many were three feet or more long, and the tops from two to four feet.

While they will grow almost anywhere, new ground is the ideal place for them. Many of us have odd corners, steep hill-sides or other waste places which produce only brush or weeds that are not only worthless but a source of constant annoyance, and call for much unrequited toil to keep them clean. These places may be cleaned up in spring or winter, the brush burned and the ground set in catalpa at eight feet apart, both ways. It is surprising what a number of trees can be grown in this way, and the space never be missed, as an acre will contain six hundred and eighty trees at this distance.

If the soil is good enough, no matter how rough, a crop of sorghum can be grown on it the first season with no detriment to the young trees, and thus immediate returns gained for cleaning up the land. In this case it will be necessary to chop out the brush and weeds once or twice with a hoe, but as it is necessary to keep them down anyhow, it is labor well repaid.

In this way, on fair soil, the trees will make a good growth; if set as yearlings they will average two-foot tops and make a root growth sufficient to shoot them up straight for five or six feet the next summer, whether they are cultivated or not. Plant the sorghum in hills and not closer than two feet from the trees, thick or thin, as you please.

They can also be grown in sod, as along fence rows and roadsides, though if set in single rows they are inclined to make a bushy top and would require an occasional pruning to keep them in proper form. Some of the railroads have a row set on either side the right of way, thus beautifying the landscape and providing for a future supply of timber for ties. Let go unpruned, they make a good windbreak, as good as anything in the way of a deciduous tree can be as such.

Stock, as a rule, will not eat the leaves, even sheep passing them by unless confined with them in a field innocent of any other green thing. FRANK LINSLEY.

## Walnut Stumps

In the past years many walnut trees were cut for export timber, but the cull trees were not cut. Within the past few months the farmers in this section have been able to dig their old stumps and cut their cull walnut trees to a profitable advantage. In fact, the stumps, crotch knots and cull trees can be sold at a price that the farmer used to get for his prize walnut timber. S. T. WEISE.

## Increasing Corn Yields

In my locality twenty-five bushels to the acre is the average corn production. By plowing deep, draining a piece of wet land and fertilizing with well-rotted wood, I got eighty bushels an acre. I got a very large and very long-eared corn for seed. J. R. PARKER.



## The Grange

By MRS. MARY E. LEE

Wells W. Miller

**D**IED, April 8, 1906, at his country home, Castalia, Ohio, in his sixty-fourth year, Wells W. Miller. Secretary of the Ohio Department of Agriculture, and Treasurer of the Ohio State Grange. Captain Miller was also Vice President of the American Association Farmers' Institute Directors; Secretary of the Antietam Battlefield Commission; member Loyal Legion, Vice-President of the Capitol Savings and Trust Company; director in the Midland Mutual Life Insurance Company. For many years he was secretary of the Ohio State Grange; sixteen years assistant secretary of the National Grange; member of the State Board of Agriculture from 1889 to 1894; secretary, 1895-1906; member of the Board of Managers of the Penitentiary under Governor McKinley.

He was born in New York; moved to Ohio in early boyhood, taught in a district school, entered Oberlin College, and ranked as junior when the war was declared. At the age of nineteen he enlisted in the Eighth Ohio Volunteer Infantry as a private, and for distinguished bravery was promoted successively to lieutenant and captain of his company in less than one year. In the battle of Gettysburg he led the charge with his company at Bloody Lane, being the first one to cross the Bloody Angle. From eight A. M., July 2d, to three P. M., July 3d, he was continuously on the firing line, and participated in the repulse of Pickett's Division in his famous charge against the Union army at the high-water mark of the rebellion.

In this battle he was severely wounded in the right shoulder, was taken prisoner, and exchanged six months later. His wound incapacitated him for active service, and he was detailed to recruiting duty during the balance of the war, with headquarters at Kalamazoo. He was discharged January 8, 1864, for wounds received in action.

Returning home, he married Miss Mary Caswell, a talented young woman. He engaged in mercantile business in Iowa. Through the duplicity of his partner he lost everything. He returned to Ohio, bought the farm which is the family homestead, going in debt \$14,000. While in debt he borrowed money to send his son and daughter to Oberlin College. Both graduated with highest honors.

Such is a brief outline of the career of one of Ohio's most gifted sons. He brought to the agricultural interests ability that if given to commercial industries would have made him a financial king. He never forgot a friend. He never pursued one who did him harm. He was honest, conscientious, possessed of the most delicate sense of honor. He inhabited a high sphere of thought, into which other men rose with difficulty.

It is said when one comes close to great men he finds they are possessed of envies and jealousies of lesser. The closer one came to W. W. Miller the greater was his magnanimity. His habitual self-control, combined with a rich and rare courtesy, made him a power in whatever he did. His splendid executive ability, his indefatigable industry, his talent as an organizer, combined with persistency and courage, achieved for Ohio that which ranks her agricultural department the first in the land.

Words are too poor to speak Ohio's loss. She mourns a great and good man who ably and faithfully discharged every duty assigned him. Time will show a genius did our work.

Captain Miller was buried in the home cemetery. Hundreds followed him to his last resting place. Doctor Rexford, of Columbus, delivered an address full of appreciation of the worth of the departed friend, from which I give a few sentences:

"He reënforced all the highest ideals of which we are conscious. He made life feel better. He never indulged mean prejudices. He could be generous and foregoing to other people's faults. If a man cannot forgive he can make no prog-

ress. He was so gentle, yet so rugged. He did not go out of his way to do good deeds, because such things all seemed to be in his way. He consulted principle rather than polity. His was a great and good life. As Tennyson says:

We have lost him: he is gone:  
We know him now: all narrow jealousies  
Are silent; and we see him as he moved,  
How modest, kindly, all-accomplished, wise;  
With what sublime repression of himself,  
And in what limits, and how tenderly;  
Not swaying to this faction or to that;  
Not making his high place the lawless perch  
Of wing'd ambitions, nor a vantage ground  
For pleasure; but through all this tract of  
years  
Wearing the white flower of a blameless life.

\*

### A Flourishing Grange

A reader in Conneaut, Ohio, sends us the following about the grange in that place: "Lone Star Grange was organized two years ago, and has over ninety members. March 8th, thirty-one were initiated into the third and fourth degrees. Applications are coming in each meeting.

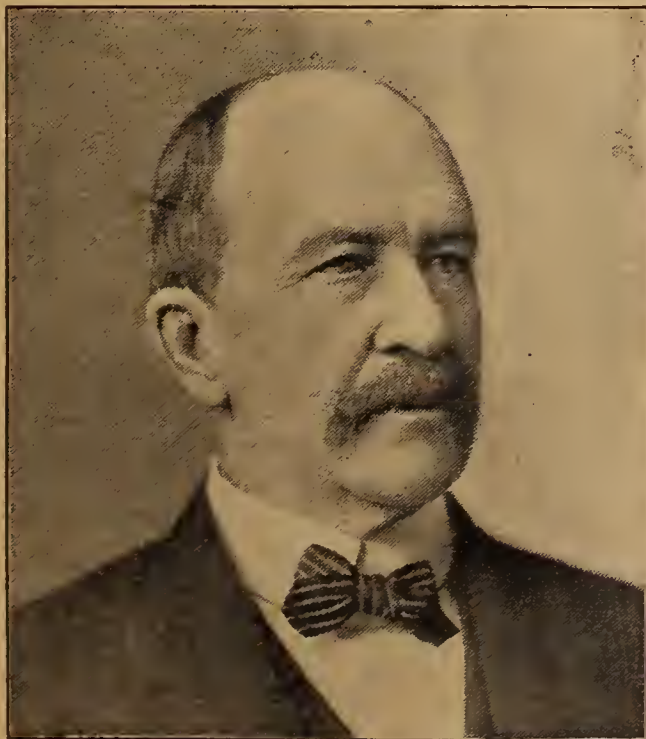
The grange outgrew the limits of the old hall. A dwelling house was purchased, the rooms downstairs arranged for a fine dining-room, kitchen and reception-rooms, and the upstairs for the lodge and ante-rooms. In February this enterprising grange had a shower. Enough dishes, linen, and even stoves, were donated to furnish the new home. One room is set aside for a nursery for the babies. There are rocking chairs and cribs in this room, a boon to mothers and children alike. A small debt rests on the home, but the prospects for payment are good, for the members are willing, earnest workers."

Congratulations. This grange manifests the true grange spirit and exemplifies the foundation of all progress, fraternal relations and a wise regard for the feelings of others.

\*

### Grange Growth

One hundred and fifty-nine granges were organized and reorganized during the past quarter. Of this number New York has twenty-two; Pennsylvania has twenty; Washington, fifteen; Maine, twenty; Ohio and Michigan, eleven each, and Kansas, ten. A significant fact is the spread of grange gospel in Kansas, Washington and Minnesota. Minnesota has



WELLS W. MILLER

Late Secretary Ohio State Board of Agriculture

eight new granges to her credit. National Lecturer Bachelder, Past Master Ladd, of Massachusetts, and State Master Richardson, of Massachusetts, have been working in Minnesota.

Great credit is due State Master Kegley, of Washington, for the splendid showing his state has made. He has done splendid work in the past, as is evidenced by the spread of grange sentiment in his state, and in near-by states where there is no state grange. It is a tribute to the esteem in which a man is held to see the grange grow in his own section. A man who cannot command respect for the things he respects in his own community has no place as a state officer.

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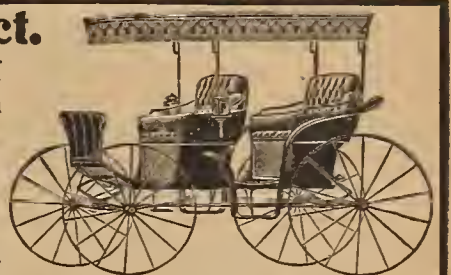
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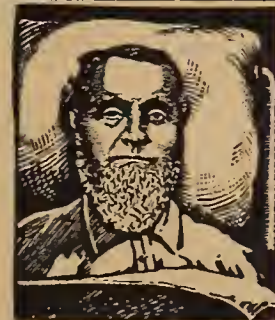
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Sons of Eminent Men

[CONTINUED FROM LAST ISSUE]

THOUGH most of the famous men's sons who have made good have done so along lines similar or akin to those marked out by their fathers, others have followed lines entirely new to the family genius. Oliver Wendell Holmes, the son of the "Autocrat of the Breakfast Table," is a case in point. His father devoted himself to medicine and literature; the son preferred law, and by reason of his legal acumen and profound knowledge has been made a member of the Supreme Court of the United States.

Dr. S. Weir Mitchell, eminent physician and novelist, belongs to both classes. His father was a famous physician in his day, and the son was divided for a time between medicine and literature. Finally he determined to work for success with an eye single to literature, and, curiously enough, it was Oliver Wendell Holmes, the poet-physician, who induced the young man to do so.

"You cannot win success in both," said Holmes to him one day, when breakfasting at the Mitchell home in Philadelphia, apparently forgetting his own case. "Win in one or the other first, medicine preferred. After you have won, take to literature and win in that."

Weir Mitchell took the poet's advice, made himself one of the world's greatest nerve specialists, and then at fifty set out to win in literature.

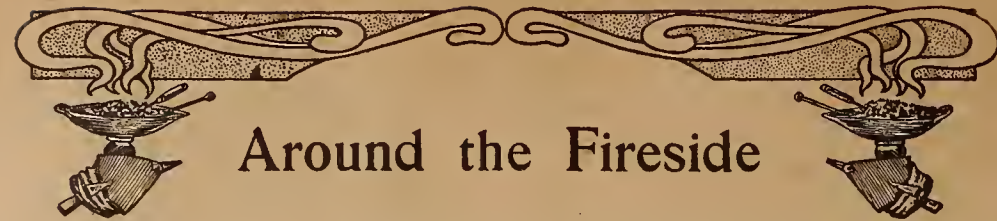
To mention the sons of American military and naval heroes who have made good, and tell how they have done it, would take too much space. General Fitzhugh Lee, the son of Commodore Sydney Smith Lee; Lieutenant J. L. Worden, son of Admiral Worden; Lieutenant Cushing, son of the Cushing who distinguished himself in the Civil War, are among them, and the army and navy registers are brimful of such names as Rowan, Perry, Winslow and Crowninshield, that recall the deeds of fathers and forefathers which shine with imperishable light on the pages of our national history.

It is worth noting that many of the successful sons of great Americans have had in their youth the equivalent of the training that comes to the young men without money or influence who set out to win. When, as has been told, the lad Fred Grant was with his father before Vicksburg, he endured hunger, thirst and all the discomforts that come to the men in the ranks. Though forbidden, on one occasion, to leave the comparative safety of a gunboat on the Mississippi River, near the Grand Gulf, he slipped ashore on pretense of chasing a rabbit, followed the sound of the guns and watched the battle, well within range of the Confederate shot and shell, dodging behind a tree that his father should not see him when the general rode up.

George Gould never went out and got a job as did Cornelius Vanderbilt the second, but he was made his father's assistant when only seventeen or eighteen, and had to work as hard as any of the clerks. He learned telegraphy then, and sat at his desk in his shirt sleeves, a habit which he has never given up. Young Rockefeller had to work, too, going into his father's office as soon as he was out of college, and working steadily and through long hours every day. Young Morgan had to do likewise, and, of course, the sons of naval and military heroes who have followed in their fathers' footsteps have had to stand upon the same footing, both at Annapolis and West Point, as the sons of the most obscure citizens in the land.

The Suez Canal

With all the Panama Canal news that is flooding the newspapers and magazines, to many it may be interesting to know that the creation of the wheat-export trade of India was directly due to the opening of



Around the Fireside

the Suez route to Europe. Before that time, says the "Technical World," all attempts successfully to ship wheat by way of the Cape of Good Hope had failed, because of heating during the long voyage and the loss from weevils in the cargo.

During the first year of operation of the Suez Canal 480 vessels, aggregating 436,000 tons, passed through it. At the present time the number is about 4,000 ships, with a tonnage of about 10,000,000.

The magnitude of these figures becomes apparent when it is considered that the foreign tonnage entering at the port of New York is less than 9,000,000 a year.

Measured by value the importance of the Suez Canal traffic becomes much larger, the imports and exports of India alone which pass through it being nearly one fourth of the value of the total foreign trade of the United States.

The building of the Suez Canal was a triumph of organization. At times no fewer than 80,000 laborers were employed; and all the adjuncts of a permanent community had to be provided by the constructing company.

by the wholesalers was \$1.85 a bushel, and when these beans were sold again by retailers to their customers they brought an average of twelve cents a pound, or a grand total of \$6,598,272.

So tremendous has the demand for baked beans become in Boston that two companies have been formed whose business is to bake beans for restaurants and quick-lunch establishments. One of these companies uses an average of 4,000 quarts a week; and the other 10,000, yet the beans that these companies bake are but a drop in the bucket compared with the consumption of the city.

Taking the receipts in Boston for 1904 of 68,732 barrels, that would give the number of bushels 343,660, or 10,997,120 quarts, weighing 21,994,240 pounds.

Accepting the population of Boston as approximately at 553,000, this would give each inhabitant, men and women, boys, girls and babies, an average of thirty-seven quarts. These thirty-seven quarts of beans would weigh 148 pounds.

The bean-baking establishments, which are fitted with the most improved methods,

The work is so arranged that all the pots are ready for baking about twelve o'clock noon. Then as quickly as possible they are put into the oven, and, once in, are allowed to remain until two o'clock the following morning, when the work of taking them out begins. As fast as one pot is out it is sent up on an elevator to the floor above, and from there, loaded into two-horse wagons, which distribute the beans to the restaurants.

Weights of the Sexes at Different Ages

The "Scrap Book" says that if all the men and women, boys and girls, and infants—black, white, yellow, brown or red—in all parts of the world, could be weighed on the same scales, the average weight would be nearly one hundred pounds avoirdupois. Six-pound infants and three-hundred-pound giants contribute to the average.

Upon the average, boys at birth weigh a little more and girls a little less than seven pounds. For the first twelve years the two sexes continue nearly equal in weight, but beyond that age the boys acquire a decided preponderance. Young men of twenty average 135 pounds, while the young women of twenty average 110 pounds each.

Men reach their heaviest weight at about forty years of age, when their average weight will be about 140 pounds; but women slowly increase in weight until fifty years of age, when their average weight will be 130 pounds. Taking the men and women together, their weight at

full growth will then average from 108 to 150 pounds; and women from 80 to 130 pounds.

As weight increases, the normal human pulse becomes slower, and then, as weight grows less, in old age, the pulse becomes faster again.

The Age of Marriages

In Greece, Switzerland, Hungary and Spain a boy may marry at the age of fourteen, a girl at twelve years. In Austria the age is fourteen for both sexes. In France, Belgium and Germany the age is eighteen for a youth and fifteen for a girl, though the rule in Germany is modified by the special law in Saxony, where girls are required to be at least sixteen before marriage. The minimum in Russia is eighteen for the youth and sixteen for the girl.

Though the marriageable age is fixed so low, astonishingly few couples marry under eighteen years

of age. The average French woman is as mature at the age of eighteen as the average American woman is at the age of twenty.

In the United States the marriages of women over forty years old are not uncommon.

Woman and the Mirror

Woman's vanity is receiving the attention of German statisticians. In short, they have been calculating what part of a woman's life is spent in looking at herself in a mirror.

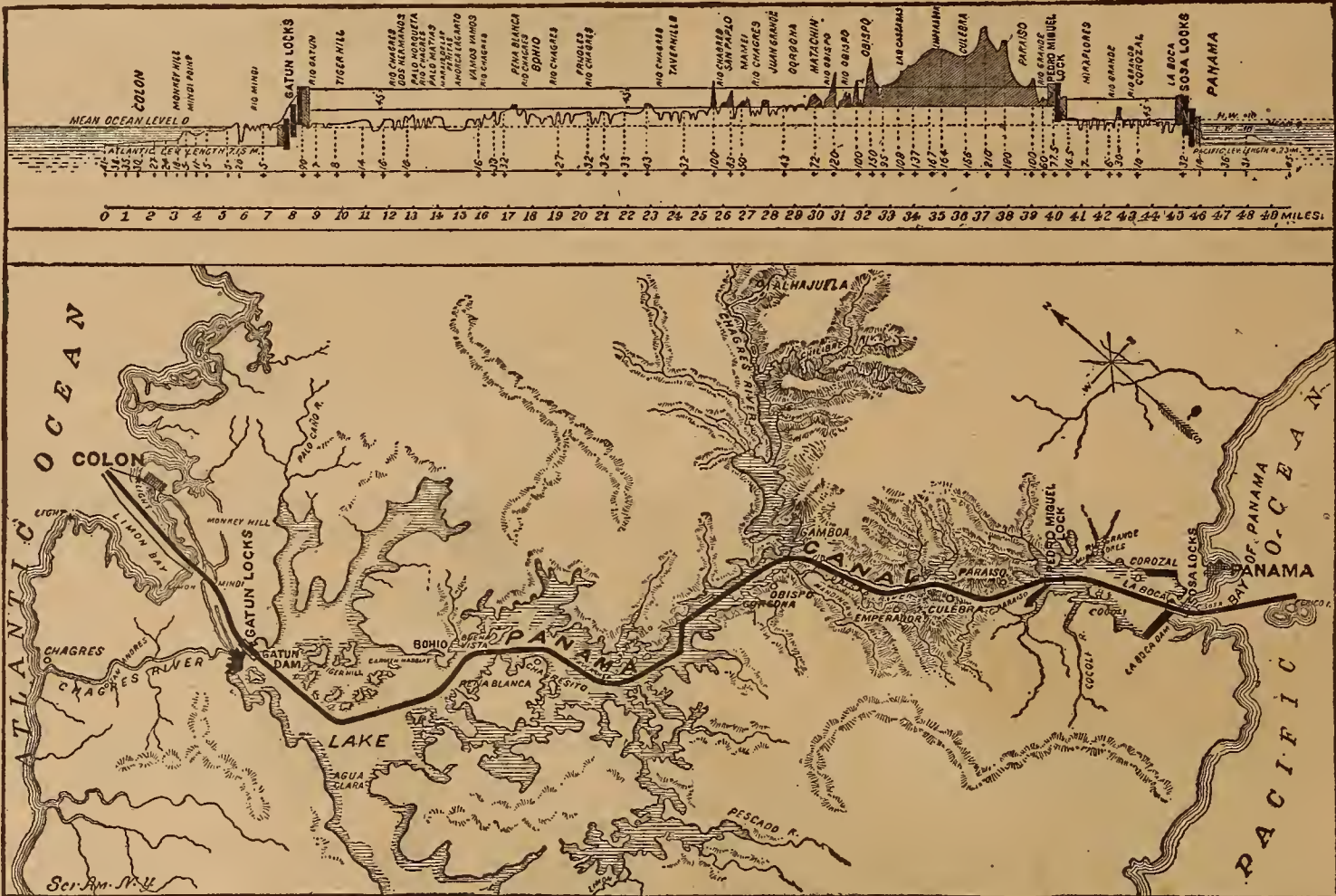
She begins as a rule at six years. From six to ten she has a daily average of seven minutes. From ten to fifteen she devotes a quarter of an hour to her glass.

At twenty she certainly spends thirty minutes daily admiring herself, and when past twenty a whole hour.

The statisticians are tactful enough not to say when a woman begins to take less interest in her personal appearance, but women more than sixty years do not, they say, spend more than ten minutes daily at their mirrors.

All this time reckoned up—it is a simple sum in multiplication—makes seven thousand hours, or about ten months, at the mirror.

They then proceed to compare the time which a man—a German man—devotes to this occupation, and come to the conclusion that his average is seven months.



PROFILE AND MAP OF THE PANAMA CANAL

President Roosevelt favors a Lock Canal. Mr. Wallace, who resigned as Chief Engineer of the canal project, when heard recently before the Canal Commission, advocated a sea-level canal. According to the above map the canal would extend from the 40 foot line on the Atlantic to the 40 foot line on the Pacific, a distance of 50 miles. The first 8 miles is a sea-level channel; next is 24 miles of lake navigation at 85 feet above sea level; then 7 1-2 miles of narrow canal through the Culebra hills; then 5 miles of lake navigation at 55 foot level; and last 4 1-2 miles at sea level.

The cost of maintenance of the canal is necessarily high, on account of the drift of sand from the Nile at Port Said, which has constantly to be dredged away. The operating expenses are also heavy, the great traffic involving considerable cost for pilotage. Altogether, the annual expense for maintenance and operation is at the present time about \$1,400,000, or approximately \$13,000 per mile.

About thirteen hours are required to go through the Suez Canal by ordinary steamer. By a system of landing marks and electric-light buoys, navigation by night is made as safe as by day; and each vessel in motion is required to supplement the stationary lighting system by having on board and in operation a lighting apparatus to illuminate its passage through. Vessels without an apparatus of their own may hire the necessary reflectors, etc., upon entering the canal and return them on leaving.

Magnitude of Boston's Bean Bill

If the residents of Boston would swear off eating beans for a year and save the money that is annually put into the bean industry, they could accumulate enough money to buy the largest battle-ship in the United States Navy.

On the subject the New York "Herald" says that in 1904 the gross receipts of beans in Boston were more than 68,000 barrels. In each barrel are five bushels. The average price at which these were sold

have a large porcelain kettle built over a furnace in one corner of the cellar. In this huge thing the beans are soaked during the day and parboiled at night. Early the second morning the pots in which they are to be baked, which vary in size from those holding twelve quarts to ones which hold a single quart, are arranged around the floor and tables. Into them the beans are poured from large dippers.

Then the baker goes about from pot to pot and puts in his seasoning.

There is as much mystery over this part of the performance as there is in making chemical combinations. Good bakers are in great demand, for it's a more difficult matter to mix molasses, spices and what not for 800 or 900 quarts of beans than it is to season only a small pot which is to be eaten in a family where, perchance, even if the flavor is not good no mention will be made of the fact, for fear of hurting the feelings of the mother, sister, wife or sweetheart.

Once this precious part of the baking is done, an under helper goes about putting in pieces of salt pork, allotted at the proportion of one pound to each gallon of beans.

Several hours are consumed in getting the beans into the pots and making them ready for the oven, and while this is being done the head baker is giving attention to his oven.

On the same side of the cellar with the parboiling kettle is the oven, which must hold 800 to 2,000 quarts of beans.



**"My Old Kentucky Home"**

BY GEORGE DALLAS MOSGROVE

All up and down the whole creation,  
Sadly I roam,  
Still longing for the old plantation,  
And for the old folks at home.

Love for native home is natural and enduring; fond recollections will persistently present to view every loved spot that infancy knew:

'Mid pleasures and palaces though we may roam,  
Be it ever so humble, there's no place like home.

The cotter's song, the flowers, the garden,  
The field, the trees,

The woodbine on the cottage wall—  
The heart still lingers with them all.

## COMING HOME

All native Kentuckians residing in other states, and every prodigal wanderer who "still longs for the old plantation and for the old folks at home," have been invited to visit their native heath, where the meadow grass is blue, and to be the especial guests of the city of Louisville during the Home-Coming Week, June 13 to 17, 1906. The latchstring will hang on the outside, and the Falls City will be prepared to entertain no less than one hundred thousand ex-Kentuckians, particularly on the second day of the reunion, June 14, when will be unveiled the statue of Foster, the inscription on the pedestal being as follows:

Erected to the Memory of  
STEPHEN COLLINS FOSTER,  
Author of

"MY OLD KENTUCKY HOME,"  
By the School Children of the State.

En route to the Blue-grass State, the home-coming Kentuckians will be heard singing Foster's immortal melody,

The sun shines bright in the old Kentucky home,

'Tis summer, the darkies are gay;  
The corn top's ripe and the meadow's in the bloom,

While the birds make music all the day.

Foster is dead, but his songs still live—sung everywhere, in palace and cottage, on land and sea. "My Old Kentucky Home" and the "Old Folks at Home," singularly appropriate for "Home-coming Week," will be sung night and day, mandolin, guitar, banjo and violin playing the accompaniment. Sambo, traveling back to "Dixie's Sunny Land," will be heard thrumming his banjo and singing,

'Way down upon the 'Swanee River,  
Far, far away,  
Dar's whar my heart is turning ebber,  
Dar's whar de old folks stay.

An avant courier, already on the ground, being asked how he felt to be back in Kentucky, replied:

"Just as the nigger felt when he had the 'possum and sweet 'taters—like being in heaven."

When the schoolchildren unveil the statue a quartet from Pittsburg, Foster's home, will sing the Kentuckian's cradle song, "My Old Kentucky Home," the voices of one thousand children and twenty thousand "grown-ups" joining in the refrain,

Weep no more, my lady,  
Oh, weep no more to-day!  
We will sing one song for the old Kentucky home,  
For the old Kentucky home, far away.

Mrs. Marion Walsh, daughter of Foster, will play the melody also, using a piano.

## CHARACTERISTICS OF FOSTER

As described by his daughter, Foster was five feet seven inches tall, his figure being well proportioned. His head was large, and his features were regular and striking. An expression of unusual intelligence shone in his large, dark eyes. His hands and feet were small, and in general appearance handsome, but not robust.

The members of the "Foster Chorus," Pittsburg, relate many interesting stories of the composer's life. They say he would sit alone at the piano and improvise charming strains of music, many of which he did not preserve; that his voice, plaintive and sympathetic, unfailingly appealed to whoever heard him sing. Often, when in Kentucky, a state he delighted to visit, he would attend the negro churches to listen to the peculiar melody of the songs. In the "little cabin homes," where the negroes were merrily picking the banjo, he heard the melodies that he afterward wove into his plantation songs. He was a guest in the elegant and hospitable home of an eminent jurist and statesman, John Rowan, near Bardstown, Ky., when he composed the song that gave him enduring fame, "My Old Kentucky Home." On the



## Around the Fireside



THE HOUSE IN WHICH "MY OLD KENTUCKY HOME" WAS WRITTEN

Rowan plantation were many negroes, but now all is changed. The "little cabin homes" are deserted, the banjo is silent, the melodies are heard no more.

They hunt no more for the 'possum and the coon,  
On the meadow, the hill and the shore;  
They sing no more by the glimmer of the moon,  
On the bench by the old cabin door.

## SUWANEE RIVER

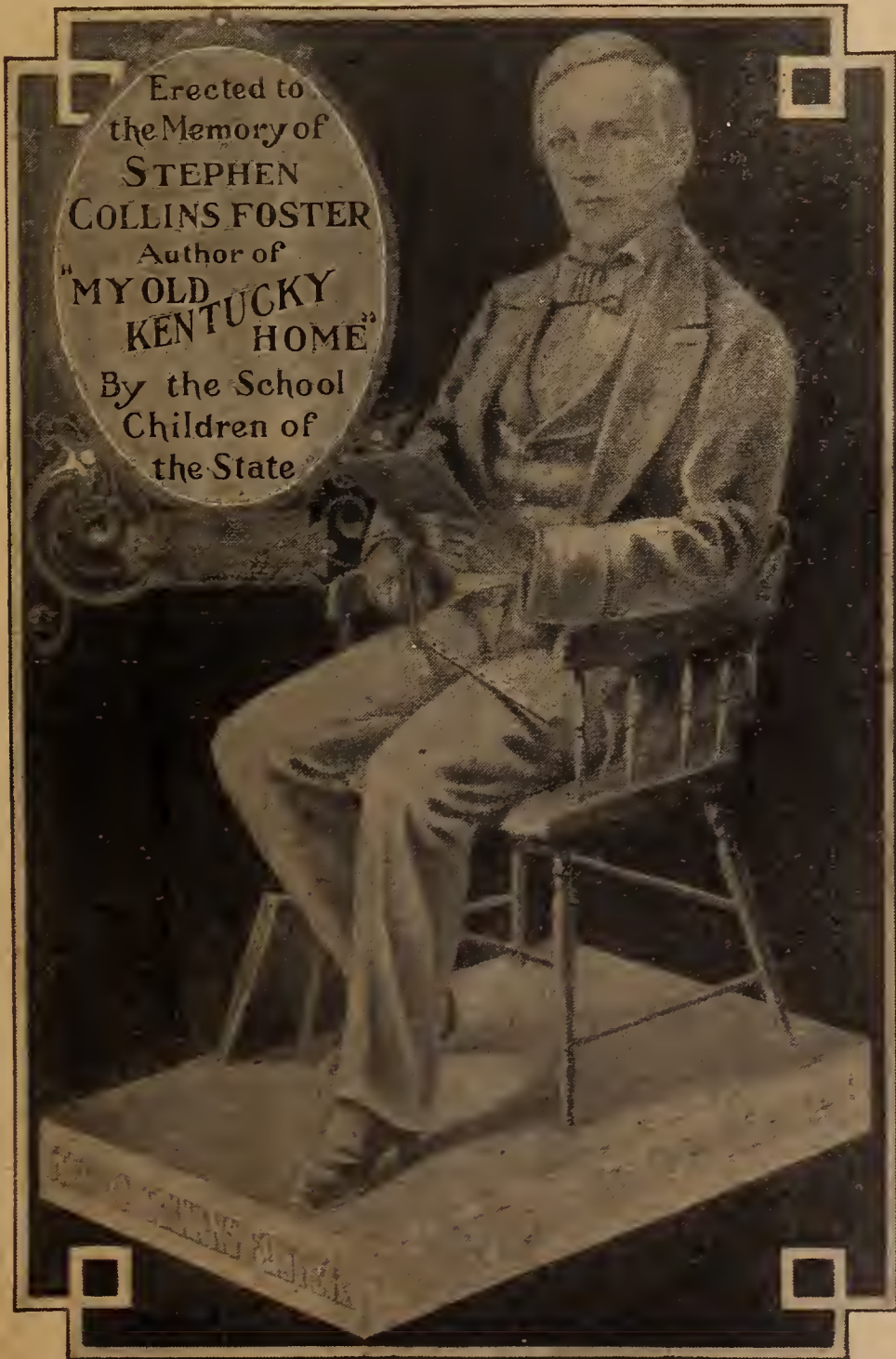
Morrison Foster, the composer's brother, told the following little story regarding the "Old Folks at Home":

"One day in 1851, Stephen came into

my office in Pittsburg and said: 'What is a good name of two syllables for a Southern river? I want to use it in my new song, "Old Folks at Home."' I suggested 'Yazoo,' but he said that had been used before. I next suggested 'Pedee,' but that did not harmonize, and finally we looked over a map together until we found 'Suwanee,' the name of a little river in Florida, emptying into the Gulf of Mexico. As soon as he saw it, Stephen exclaimed, 'That's it!' and forthwith, on the same day, he finished the song, 'Way Down Upon the Suwanee River.'"

## THE GLORIES OF KENTUCKY

Yes, the wanderers are coming home.



THE STATUE THAT KENTUCKIANS WILL UNVEIL ON JUNE 14th AT LOUISVILLE

They want to visit the old barn, the old swimmin' hole, and drink from the old gourd down at the old spring house. They want to see the graves of their fathers and mothers.

Some years ago, Governor Thomas T. Crittenden, of Missouri, visited the home of his nativity, Kentucky, and attended the state fair at Lexington. He was taken in charge by Gov. Luke P. Blackburn, who said: "Crittenden, what are you here for?" Said Crittenden, "I am here to attend the fair. I have brought my wife with me, who is a Kentuckian, and we want to see the old state once again and revel in its joys as we did years ago."

"I hear you are Governor of Missouri."

"Yes."

"Look for a moment at these beautiful grounds on which this exhibition is held. Look at this blue-grass. Evc in all her beauty and glory never trod on grass that was equal to this. Did you ever see anything like it in Missouri, or elsewhere?"

"No; I am within your state, and I agree with everything you say."

"Look at these men. Did you ever see such splendid specimens of manhood? All of them almost six feet tall and as bold looking as Prussian soldiers. Did you ever see such men?"

"Never in my life, outside of Kentucky."

"Look at these women. Solomon in all his glory and the women of his court were not arrayed like the women you see on this fair ground. Did you ever see such cheeks? Did you ever see such eyes? Look at them and tell me if you ever saw in Missouri such lovely women as these."

"No, certainly not."

"Yonder comes Maud S. into the ring. Look at her. Did you ever see man or woman step as lightly as she does? Have you ever seen anything built with the symmetry of that splendid animal?"

"Never, never."

"Look at these stallions. Jove described them when he wrote thousands of years ago. Did you ever see anything like them in Missouri?"

"Never, no, never."

"Now, look at that herd of shorthorns. Why, England and Scotland in their best estate never made an exhibit that could compare with this. There are the glories of Kentucky. Did you ever see anything like them in Missouri?"

"No."

"Well, all I have to say to you, Tom Crittenden, is that I pity you from the bottom of my heart. You were always a good fellow, and when in college you were smart. I am sorry for you. I pity you for being Governor of Missouri, when, if you had stayed at home right here in Kentucky you might now be a county judge in one of the back counties of this Blue-Grass State."

## Uncle 'Zekiel's Dream

Las' night I dreamed ob heaben—

I got up dar, somehow,

An' de angels dey war tickled

When I made dat monstrous bow!

Dey said, "Good-mawnin', 'Zekiel,

How's you an' Ole Aunt Liz?"

I said, "Jes' tol'ble—

Bofe got de rheumatiz."

An' eb'ryting wuz glory

An' pow'ful bright an' fair,

An' eb'ry little angel

Wore a star up in dey hair;

An' de people dey cum dancin'—

Jes' a-marchin' to an' fro—

An' dey ax me, "Uncle 'Zekiel,

Did yer brung dat ole banjo?"

Dey didn't look like ghos'es,

An' dey faces wasn't long,

But dey all 'peared pow'ful happy,

Ner seemed ter think 'twas wrong;

De preachers wasn't callin'

Fur de mou'ners, dat I seed,

An' I neber heah a mention

'Bout 'em habin' ob a creed.

An' now I'se gwine ter tell you,

Dat dey has a lots ter eat;

An' my mouf hit jes' war waterin'

When I smell de juicy meat;

I neber see sich turkeys!

Dey war mighty big an' fine—

An' dem watermillions, my!

Dey war ripenin' on de vine.

I doan' know how I got dar,

'Cept 'twar by a mighty rub—

Or becace de angels tole me

Dat heaben war only lub;

I wondered if dey'd ax me

'Bout dem chickens dat war lost,

An' I begannd ter fumble

In my pocket fur de cost.

No, dey didn't look like ghos'es,

An' dey faces wasn't long,

An' dey all seemed pow'ful happy—

Ner seemed ter think 'twas wrong—


Fur when I got to heaben,

Right at de pearly gate,

Marse Pete war a-eatin' 'possum

Out ob a golden plate.

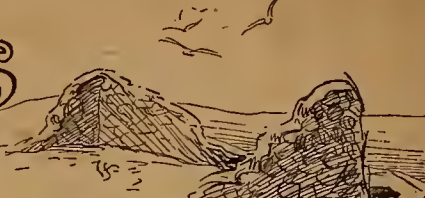




# Behind Adobe Walls

## A Story of the Old Santa Fe Trail

by Mary McCrae Culter



Fort Bent, 1840. Fort Bent, 1906.

[CONTINUED FROM LAST ISSUE]

## CHAPTER III.

IT WAS early in the spring of 1866 when a long train of sixty wagons pulled out of Independence, Missouri, bound for the Far West. According to the regulations of the time, the party was formed into a military organization, fully armed and equipped, the arms and ammunition being supplied by the government. Each of the sixty wagons was drawn by ten mules, and a number of extra animals were taken along, to supply the place of any that might fall by the way. One hundred and fifty men went with the wagons, and a strong party of military formed the escort. For this was no ordinary trader's wagon train that was starting out across the Santa Fé Trail. It was laden with supplies and ammunition for the various government stations along the trail, and was accompanied by Colonel Vernon and his staff, who had been appointed to take charge of the station and troops at Fort Bent. A number of women accompanied the party, as several of the men were taking their families with them to their new post of duty. A special ambulance was provided for their accommodation, and every possible arrangement made for their comfort on the long, tedious and dangerous journey.

Dorothy Vernon was filled with excitement over the move which she and her mother were making. Colonel Vernon had served his country faithfully during the long years of the Civil War. During his absence on the field, Mrs. Vernon and Dorothy had made their home in New York with Mrs. Vernon's parents. Here Dorothy had received her finishing education, and had blossomed out into beautiful young ladyhood. Life had been gay and care free for her, with only her father's absence to cast a cloud over her existence. Winsome, merry and kind, she had won for herself a host of friends and admirers in that city. When the Civil War came to a close Colonel Vernon was continued in military employ, and because of the bravery and efficiency he had shown, he was ordered to take charge of what was, at that time, the chief military station in the West. As soon as his orders were received, Mrs. Vernon and Dorothy decided to accompany him to his new post. In vain he argued the loneliness, the privations of the far-away fort. In vain he pictured the hardships and dangers of the way. They refused to heed his well-meant warnings, and Dorothy and her mother gave a multitude of reasons why they should accompany him.

"You know, papa, that you will be far less lonely if we go with you. We have lived without you for four long years, and worried continually over your health and safety. What if there is danger and privation in the West? Should a soldier's wife and daughter shrink from them? Mamma would worry herself to death, if she had to stay here. Do you think that we could be happy here, with you far away fighting Indians and living such a lonely life? Let us go with you. We will prove to your thorough satisfaction that we are brave enough to be worthy of you."

"And how do you propose to amuse yourself, away out there on the desert? You will be shut up in the fort most of the time, for—if reports are true—there is little safety outside of good, strong walls. You cannot ride or walk or visit or go shopping—woman's chief recreation. How will you employ your time?" asked her father, teasingly.

"I will read all the books that have, perforce, been neglected in this busy social life. I will take up the sketching and painting that have been laid aside so long. I will embroider, and learn beadwork, and—oh, lots of things. Just wait until you see the luggage that I will take with me," laughed Dorothy.

"And how about all these devoted swains who hang about here from week's end to week's end? Will you do without them, or are they to be included in that vast amount of luggage?"

"If they cannot take care of themselves, they are of little use to me. Bessie and Clara and Sue will soon comfort them, and cause them to forget all about me. The man who would win me must be able to do more than sigh and smile," cried the girl, with spirit.

"Well, well. We shall see. Perhaps the government will not allow you to go with me. It may be that there is no room at Fort Bent for soldiers' families. I will see what can be done."

"And I shall begin packing right away," Dorothy answered.

To the joy of all parties, permission to accompany the colonel was granted to his family. So, ere many days elapsed, New York, with its civilization, its privileges and gayeties, was left behind, and the journey across the continent was begun.

Dorothy was intensely interested in all the preparations that were necessary before the great wagon train was fully equipped and ready for its long journey. The great wagons themselves were novelties to her. Each one was as strong as could be made, and larger than any of the vehicles that she had seen in the East. Each one, when loaded, carried from six thousand to ten thousand pounds of freight. They were provided with heavy canvas covers, and each was drawn by ten mules. The skill with which the drivers handled their teams was a source of wonder to the city-bred girl. She was determined to see and to learn all that was possible in her new existence; so she accompanied her father every-

where, made friends with those who were to be her companions and protectors during the journey, and won the good opinion of even Joe Arment, the scout who had charge of the expedition.

"That girl will do for the West. She hain't afraid of nothin', an' just as common as an old shoe. Nothin' stuck-up about her. An' gritty—there won't be no shriekin' an' faintin' from her, even if she gits hit by a Comanche arrow. She's the kind for old Fort Bent, an' no mistake."

Such high praise from so unappreciative a person as old Joe Arment was accustomed to be, bespoke a weight of favor from those who knew how rarely he approved of any woman, and caused the girl to receive more attention from the rough men in charge of the wagon train. The young officers of the party were not slow in making the acquaintance of their colonel's attractive daughter, and her father smiled over their prompt devotion.

"The sighs and the smiles are not to be left behind, after all," he remarked to himself. "Dorothy bewitches everyone she meets, and she does it unconsciously, bless her. There's nothing of the cold-blooded flirt about my little girl. What a joy it is to have her with me."

The first five hundred miles of the journey from Independence were fraught with little danger to the train. Their greatest trouble was from swollen streams, quag-

of the wagon train. They were riding thus one afternoon when suddenly Dorothy said:

"Look! Is not that an Indian on the top of that sand-hill?"

"Where?" asked the lieutenant. "I see nothing but a plum thicket. Your eyes deceive you, Miss Vernon. Just because we are nearing the country frequented by savages you must not imagine that you see one behind every clump of sage grass."

"Just because we are nearing the country infested by savages is sufficient reason why all of us should keep our eyes open, to prevent surprise." She wheeled her horse without further ceremony, and went back to where the scout was riding.

"Mr. Arment, is not that an Indian on that sand-hill to the southwest? behind the little plum thicket," she said. The scout darted his keen eyes to the spot indicated.

"Yes," he said briefly. "That means that the varmints have heard of our coming, are counting our numbers, and watching our movements. It means that hereafter we must be more careful lest we be attacked unawares. Do not mention what you have seen, for there is no need to raise useless alarm. Our train is too strong for the ordinary bands to molest us. You must stay closer to the wagons hereafter, Miss Vernon."

"Yes," the girl replied. "I am not courting needless danger. As for telling the rest, they will probably see Indians enough ere long, without having them pointed out."

When the train went into camp that evening, Arment gave the command:

"Form into fighting corrals hereafter."

"Seen Injuns, hev ye?" queried a teamster.

"We're gittin' into their range," the scout replied, evasively; but the frontiersman understood.

The usual "camp corral" was made by forming the wagons into a circle, the right forward wheel of one wagon, being outside of the left rear wheel of the wagon ahead of it. This threw all the poles of the wagons outside of the circle. The mules were staked upon the prairie outside, and the fires for the various "messes" were kindled inside of the corral. In a "fighting corral" the positions of the wagons were reversed, the poles being turned inward, leaving the closed ends of the wagons outside.

The guards were doubled from that time forward, and every precaution taken against attack. Dorothy and the lieutenant ceased to venture far from the wagons, and were constantly upon the lookout for signs of the dreaded savages. Frequently a solitary horseman might be seen far away on the top of some sand-hill, silhouetted against the sky, as he sat gazing at the long train of invading palefaces, enviously counted the number of their horses and mules, and speculated upon the rich contents of their wagons.

"The Comanches are terrible cowardly," the scout said to Dorothy, as she was riding beside him one day. "They never strike unless they think the odds are in their favor. I have known them to follow a train for a week, watching for a chance to pick off some straggler, or to catch us unawares. They want to kill without being killed."

Dorothy laughed.

"Isn't that the principle you go upon?" she asked.

"Yes," replied the scout; "but I don't approve of it in Injuns."

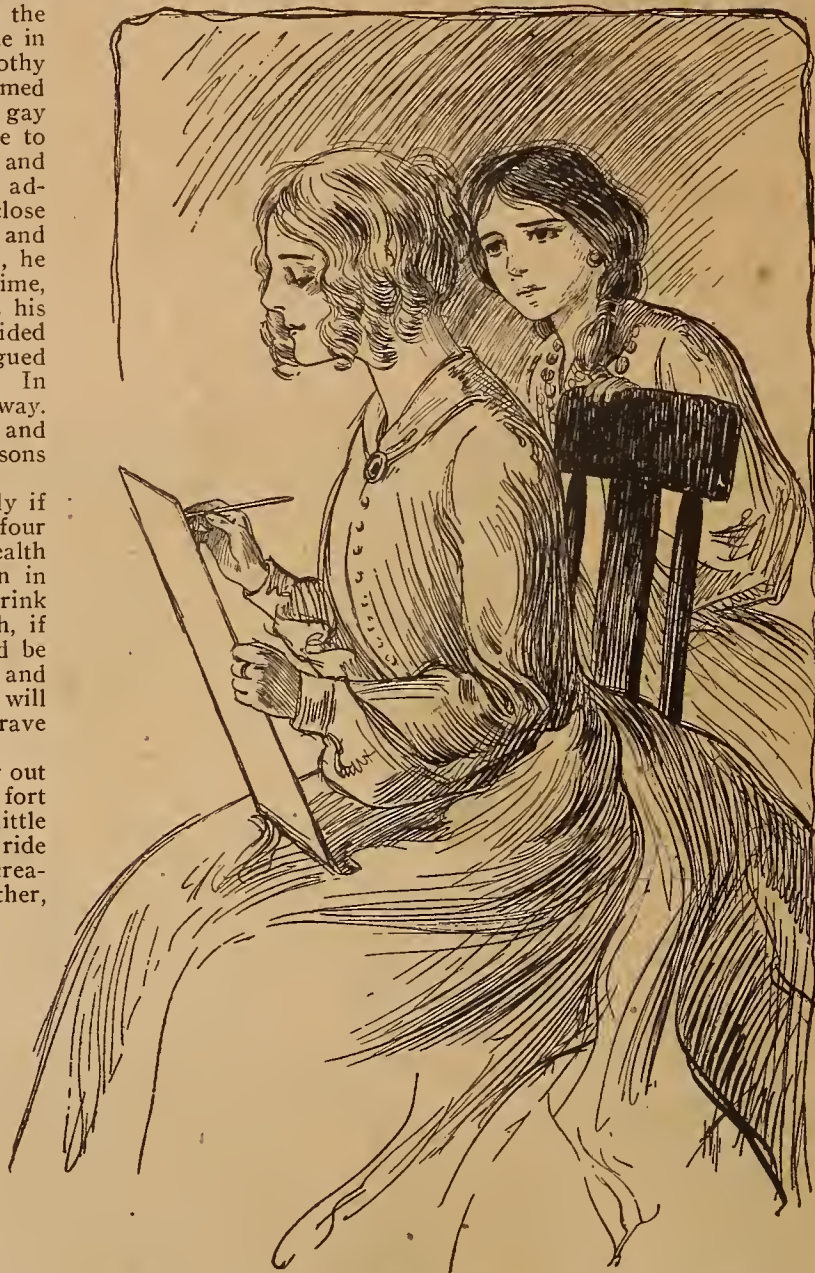
Pawnee Rock—that most dreaded spot upon the plains—was passed, and the experienced frontiersmen breathed easier to know that it was left behind them. They went into camp that night with better assurance than they had felt for days, for not an Indian had been seen all day. Still, no precautions were relaxed, and Arment "slept with both ears open," as he declared was his custom. About midnight a snort from one of the mules, answered by a snort from another, aroused the scout to instant action. Reaching out his hand, he touched his nearest comrade, saying in a low tone:

"Them mules smell Injuns."

## CHAPTER IV.

He had barely spoken when the whole air was filled with the hideous whoops and yells of a large band of Comanches, who rode furiously around the camp, trying to stampede the mules by their sudden and alarming onset. Their yells were answered by a fusillade of bullets. A shower of arrows fell within the corral, or pierced the covers of the wagons within which the women and children cowered in terror. There was a moment of silence, as the attacking party withdrew into the cover of darkness.

"They'll come again in a minute," said the scout, and they did—riding like the wind, yelling like the demons that they were, and showering arrows like hail. In the darkness it was impossible for any man to take sure aim, but evidently several of the savages fell before the fire of the soldiers, who, protected by the wagons, were untouched by the arrows. All through the remainder of the night the attacks were kept up, until dawn began to tint the east. Then, with another defiant yell and a final shower of arrows, the marauders rode away.



"You draw it well," she said, presently. "But not so well as my John"

mires, and heavy roads which made progress slow, and the journey tedious. As it was in the spring, rains were frequent and heavy, the air was raw and cold, and the far-reaching view of the bare and sodden prairies was depressing. It required strenuous effort on Dorothy's part to keep up a brave face and a cheerful tone. Over and over again she sighed for the warmth and the brightness and the good cheer of her beloved home; but all such regrets were carefully hidden in her loyal heart, and all her homesick tears were shed into the safe secrecy of her pillow. All such grief was indulged only in the friendly darkness of the night, when kindly sleep had time to wipe away all traces of tears ere morning.

On account of the heavy roads, three weeks were spent in traversing a little more than half of what is now the state of Kansas. At the end of that time the sun came out warm and bright, and on the higher and drier prairies better roads were reached, and the whole company felt correspondingly better and more cheerful.

Dorothy and young Lieutenant Robinson, her most devoted attendant, spent many hours of these bright days in the saddle, enjoying the sunshine and the exhilarating air, but keeping always within safe distance



leaving a badly alarmed but triumphant company behind them.

"Were you much frightened?" Lieutenant Robinson asked Dorothy the next day.

"We-ell," she replied slowly, "the war-whoops certainly did make the cold chills run over me, and yet I can hardly say I was frightened. I was angry. I wanted to fight. If I could have gotten hold of a gun, I would surely have gone to shooting."

"You are a true soldier's daughter," he said, admiringly. "One would never dream that you had been born and raised in the city of New York, and had never tasted of danger until now. If all women were like you—"

"You men would find us very tiresome, and if I were so savage all the time, you would deem me unwomanly. Now, won't you please saddle Gypsy for me?"

The arrival at Fort Bent of the long wagon train with its numerous attendants produced much excitement among the inhabitants of the station.

"Look!" cried Perdita to Cara. "What a pretty girl that is on horseback."

"The officer who is with her thinks so, too," was Cara's comment, as she noted the care with which Lieutenant Robinson assisted his companion from her horse.

"And what pretty clothes she has!" Perdita went on. "They're not a bit like what we wear. She must be the new colonel's daughter, and that is why the lieutenant knows her so well."

"Pshaw!" ejaculated Cara. "I reckon everybody in that wagon train knows everybody else. Do you suppose you would travel this far with that many people, and they not know you? You'd visit every wagon the first day, and if there was a young man in the crowd, he'd be the first one you would get acquainted with."

Perdita laughed. "I'm going down to get acquainted with the girl and the lieutenant right away. Come on, you want to know them, too—at least, you want to know the girl. I'll take care of the lieutenant."

People exposed to mutual hardships and common dangers pay scant heed to social ceremonies; and in a small community, such as Fort Bent was, where the interests of one were the interests of all, the utmost familiarity prevailed. It was not many hours after the arrival of the wagon train, until every one in the fort knew all of Dorothy Vernon's history that could be gained from the members of the train, the lieutenant, the colonel and Dorothy herself.

Perdita took prompt possession of the new arrival, for several reasons. Firstly, she was a lively girl, eager for new friendships. Secondly, the colonel's daughter was one whose friendship was worth securing because it carried with it more or less favor from the highest authorities. Thirdly, there would be much of interest to be learned from this girl who was fresh from the gayeties and privileges of the much-famed New York, which, to Perdita, was the center of the fabled universe. Fourthly and principally, Perdita was keen enough to know that around the colonel's daughter would revolve all the most desirable of the male society of the station, and that if she (Perdita) were known as Miss Vernon's most intimate friend, she would come in for a large share in such attention. So she did everything in her power to gain the good will of the newcomer, and to make her feel at home in the station; and while so doing her impressionable nature was completely captivated by the colonel's pretty and refined daughter.

Never before had such a girl as Dorothy Vernon come to the lonely station, even for a day. She was a marvel of grace and elegance and sweetness to the rough people who formed the large majority of the inhabitants of the fort. Even Perdita, the acknowledged belle, was not to be compared to her.

As Perdita had foreseen, the young soldiers stationed at the post hastened to do honor to their colonel's daughter, and all of the unmarried officers vied for her favor. Perdita marveled at the skill and kindly tact with which Dorothy held all these rival admirers in perfect equality, and kept them on the best of terms with one another. Perdita's aim had always been to make each one wildly jealous of all others. A sudden fear struck her one day, when she was sitting at some distance from Dorothy, and watching her talk with two of the young officers.

"She has made all the men crazy over her. They cannot see, Perdita any more. When John comes back will she take him away from me, too? No, no! She shall not! John is mine. She may have all the rest, but she must leave him for me. He may look away to the rising sun and sigh all he pleases, but he must not turn his eyes to her. I can make him forget the rising sun after awhile, but he must not think of her." And so, before ever cause appeared, Perdita became wildly jealous of Dorothy's probable influence

over the man to whom she had given her heart.

The three girls at the fort spent much of their time together. Dorothy's violin and Perdita's guitar made music which the fort dwellers considered entrancing. Dorothy learned beadwork and basket weaving, and in turn taught them new stitches in embroidery. Or, while they worked, she told them tales or read them stories of the wonderful, far-away world.

It was some time after her arrival at the fort, before Dorothy took out her long-neglected pencils and prepared to sketch the picturesque hills beyond the river. Perdita found her in a window of the southeast tower, busily engaged with this new occupation, and her jealous fear seized upon her with new force. This was a dangerous complication of which she had not dreamed. This artistic taste would form a fatal bond of interest between the newcomer and the absent artist, for had not Smith chosen that very spot to make his first sketch of that very view? She went and seated herself beside Dorothy, and watched the busy pencil as it transferred the scene to paper.

"You draw it well," she said presently, "but not so well as my John."

"Your John!" cried Dorothy, "and who is he? You have never told me about him. Where do you keep him hidden? In the bottom of the well? That is the only place about the fort where I have not been. You either care very little or a great deal about this mysterious John whom you have never even mentioned. Now, fess up, right away. Is it a nice little love story?"

Dorothy's eyes were riveted upon her sketching, and she did not see the dark look that crossed Perdita's face.

"I did not think that you needed to know about him," she said. "You have lovers enough."

"Now, Perdita, aren't you ashamed of yourself? You ought to be. Do you think I would try to steal your lover from you? Of course I like to talk with the lieutenant and the captain and all the rest; but I am not going to fall in love with any of them. The man I love—the only man I can ever love—is thousands of miles from here, across the great Atlantic Ocean. So let your jealous little heart rest easy. Tell me all about this John of yours. I promise not to take him from you. But if he loves you, I never could do that if I tried."

"He does love me," cried Perdita. "He begged me not to forget him while he was gone. He is away in the mountains with Trapper Bill's party. They went away before Christmas on a long hunting trip in the Mexican country over the range. He will bring back a big pack of pelts that will make him much money. Then we will be married."

"And I will dance at your wedding. Oh, what fun that will be! I hope your John will come back very soon. Things are dull here at the fort, and a wedding would liven us all up. Tell me all about him, Perdita—that's a dear. What's his name, and where's his home, or do you choose to tell?" she ended, quoting the old Scotch song that was one of her favorite ballads.

"His name is John Smith."

"What a romantic name!" Dorothy interrupted.

"He came from Philadelphia—"

"Then he must be very grave, and—"

—very stupid."

Perdita frowned.

"He is not stupid," she said.

"I beg your pardon," said Dorothy. "I was only quoting the New York opinion of Philadelphians."

"And he is tall, and big and handsome, and his eyes are blue—Oh, so blue! and his hair is like curling gold—"

"A true Scot," cried irrepressible Dorothy. "But then Smith is not a Scotch name. He ought to be called McSmith."

"Now you are making fun," said Perdita, half angrily.

"Oh, no! Go on. I promise to be good," replied Dorothy.

"He came before the first snow fell. He is an artist—a beautiful artist. He drew many pictures, but he drew Perdita most of all. He was with me every day. He cared for nobody but me. It has been lonely since he went away, but he will come soon. Belzy Pardee heard from an Arapahoe that Trapper Bill's party was not far from Fort St. Vrain, and that is not so very far away."

"We will hope, then, that he will come soon. We will celebrate your wedding in fine style," said Dorothy, as she closed her sketchbook, put her pencils into their case, and went away, leaving Perdita to her romantic imaginings.

The very next morning Dorothy was alone in the northwest tower of the fort. She was lonely and "blue." Her thoughts were far away across the sea, and "Bonnie Scotland" had never seemed so far away, so utterly inaccessible as it did that day.

A party of hunters were riding slowly

down the valley, and Dorothy wondered idly whether Trapper Bill and his company were returning.

"I wonder which one is the wonderful John Smith," she said with a little smile. She leaned from the window and watched the men as they dismounted before the great wooden gates of the fort. There was a clamor of greetings between the hunters and their friends, much rapid talk and loud laughter.

Then Perdita flashed out, and made her way to where a tall, stalwart man stood, a little apart from the rest. Dorothy heard her cry:

"You did come back. And Perdita has not forgotten. Welcome! Welcome!"

"Ah!" replied a voice that made Dorothy start with surprise. "It is good not to be forgotten. How is Perdita? And how is Belzy? Have you been good to him since I went away? You shall tell me all about it presently. Just now I would like a civilized breakfast more than anything else." It was far from being a loverlike greeting, but Perdita, not knowing that Dorothy heard it, was satisfied.

Leading his jaded horse behind him, the man and the girl passed from view through the archway of the gate; and Dorothy, faint and heartsick, leaned back against the cannon in the tower.

Surely she could not be mistaken in that voice. There could not be two voices exactly alike in the whole wide world; and yet, this voice belonged to a trapper in wild Colorado, while her voice was far away beside the Bonnie Doon. If only she could have seen the face which was concealed by the broad hat, she might have solved the mystery of the voice. She had a wild desire to rush down to the plaza where the trappers were preparing for their late breakfast, and take a good look at this man whose voice and figure were so strangely familiar; then she remembered the conversation with Perdita.

"He is her lover, the man whom she is soon to marry. She is jealously afraid that I will steal his heart from her, and I have promised faithfully that she need not fear. If I should go down there to meet him right away, her foolish anger would at once be aroused. Even though it were Don himself my word is sacred. But I wonder—I wonder—I wonder—"

[TO BE CONTINUED]

## The Judge's Reason

BY FRANK E. CHANNON

As an authority on equity Judge Wallace ranked high, but as a silent advocate of temperance, his reputation among his associates was even greater. Not that he ever forced his views regarding the drink evil on any of his friends—quite the contrary, in fact—but his antipathy to alcoholic beverages of any kind was so great that he could never be induced to attend any social functions at which they played a part. Once or twice during the years of a long and honorable career at the bar he had accidentally been brought face to face with his liquid enemy, and on each occasion he had at once retired and left his antagonist in full possession of the field, but the victory had, nevertheless, been his.

He had been ridiculed unmercifully during his earlier years, and even now, when the gray hairs of honor were thick upon his head, he was often the butt of many a joke. The lawyer offered no explanation of his hatred to drink, but, if ever during the hours of social intercourse with his fellows the flowing cup was produced, he at once tendered an excuse and retired from the gathering.

"Can't you even stand the sight of it, Tom?" one of his intimate friends once asked, and the old judge only shook his silvered head and smiled sadly, as he replied:

"No, old man, I can't; it jars me."

So it became known that when Judge Wallace's company was wanted (and the occasions were many) there drink was not. The two could not tolerate each other under the same roof or in the same company, and no one ever knew the reason of this until that celebrated criminal lawyer, Duke Appleton, like the wag he was, endeavored to play a practical joke on his brother barrister.

He conceived the idea of inviting the judge to participate in a fishing expedition, and then, when the punt was well away from the shore, of producing a case of whisky. And:

"Ha! ha! ha!" laughed Appleton, as he explained his little plan to a couple of intimates, "then we'll see if the judge will tolerate the good stuff or take water—literally as well as figuratively."

So the little joke was planned and the legal light, with whom fishing was a great hobby, never suspecting treason, was entrapped on board the punt.

A couple of hours passed with very fair sport, and the victim was enjoying himself immensely, when the criminal lawyer suddenly said:

"Judge, this sun is terribly hot and some

of the boys are getting terribly thirsty. You won't object if we take a smilo, I'm sure," and suiting the action to the word, he produced from a box in the bow of the boat a bottle of the hateful liquor.

The judge's countenance, as he realized that he was caught, was something to be remembered. The blood rushed to his face and then receded, leaving it ghastly white. He raised his hand in a protesting gesture and cried out in horror, as one might cry at the sight of a reptile:

"Stop, Duke, stop!"

"Why, Judge," said the would-be joker, suddenly sobered at the terrible earnestness of his victim's tones. "Surely you won't object to the boys taking a nip away out here; some of us are powerful dry."

"Duke," replied Judge Wallace, in slow, measured tones, "I'm sorry to break up this party, but I can't stay in the boat with that stuff; I had no idea it was on board. Kindly put me ashore."

There was something so pathetic and so agonizing in the appeal that Appleton stopped.

"Judge, tell me why you are so almighty opposed to this good stuff?" he asked.

Judge Wallace deliberated for a few moments, and then said:

"Put the punt about and I'll tell you all while we are making the bank. Keep the case covered!" he cried, as Appleton sat looking at him with the bottle in one hand and a corkscrew in the other.

The joker replaced the liquor.

"I surely will, if you'll only tell us the 'why,'" he answered.

Judge Wallace laid his rod on one side and began simply:

"Years and years ago, when I was a young boy of sixteen, my father called me into his study one morning and said: 'Tom, sit down; I want to tell you something of great importance.'

"I seated myself in one of the big, leather-covered chairs, and he went on.

"I have not before told you what I am now going to, because I did not consider you old enough, but you are now sixteen, and may need the information any day. Listen, then, my son.

"In our family for many generations there has been the curse of intemperance. Your grandfather was cursed with it and died of it. His father and grandfather before him were both victims of the drink fiend. I was warned of it, as I am now warning you, and I escaped; but listen, Tom. If once—only once—I tasted the deadly stuff, I should be a doomed man. It is in the blood and nothing can stay it if once it is tasted. So fell your ancestors—all victims to the drink fiend—through once being inveigled into tasting the poison. Your only salvation, my boy, is in doing as I have done—keep away from it. If once you taste it, you are lost."

"Long and earnestly did my dear father talk with me, and when I left his study I had promised over the old family Bible never, as long as I lived, to taste one drop of intoxicating liquor.

"Years passed, and I became of age. On my twenty-first birthday I was one of a number of youths who made up a picnic party. The day passed pleasantly, and it was not until the return journey that one of the young men produced a flask and proposed a drink. It was handed around. All drank of it. It came to my turn. I—God help me—I was weak; I, too, drank. I broke my solemn promise to my father. "We reached the city. As I approached my home, a messenger met me, breathless.

"Your father is ill," he cried.

"I rushed on and entered the house. My father lay very white and still on his bed. As I entered the room he opened his eyes and beckoned to me. I went to him and leaned over.

"Son, I am dying," he whispered, laboring heavily with his words. "Remember what I have told you; never touch—the drink—"

"He stopped. He had caught some odor from my breath, as I bent over him. He looked with terrible earnestness at me; searching me through and through. In my eyes he read the story of my broken promise.

"He gave one long, agonized, dying cry.

"Never shall I forget it. Never, as long as I live:

"Lost! Lost! Oh, my son!"

"He was dead.

"I stumbled blindly from the room.

"From that day I have never touched one drop of intoxicating liquor, and now you know, boys, why I cannot even stand the sight of it. Put me ashore, please."

"Now, I'll be hanged if we do," hotly retorted Duke Appleton, as he leaned forward and fervently grasped the judge's hand. "Boys, over with it! We can do without that stuff, but we can't do without the judge."

There was a loud splash, and fifteen dollars' worth of United States Government bonded whisky was at the bottom of the river.



## The Mother Who "Dressed Up"

BY FELIX FAXON

"SAY, mother, why don't you ever dress up like Joey Blank's mother? She dresses up ev'ry single afternoon same as if she was going somewheres or somebody was coming to their house. She looks just as nice!"

I remember that I heard a boy of about twelve years say this to his mother once upon a time, and her reply was brief, but comprehensive, for she said,

"Oh, it's too much bother."

Now I know another mother who does "dress up" to please her husband and children because they like to see her "dressed up." She cares very little for dress in itself and it is often a good deal



YARD HAT MADE OF MATTING

of a "bother" to "dress up" each day, but she does it just the same. She has three children. One of them has proclaimed blue as his favorite color; another expresses a decided preference for pink, while the third likes bright red. One day this mother wears a blue ribbon at her throat and perhaps a blue bow in her hair to please the lover of blue. The next day the little girl who is so fond of pink finds mamma with pink ribbons, and the third child, a boy, always feels that he has been especially honored when he comes home from school and finds mamma in a bright red house dress that he had the honor of helping her to select at the store. The other day this boy, whose allowance of "spending money" is twelve cents a week, took ten of it and purchased a bright red carnation to put in her hair the day she wore "his dress," as he calls the red house dress.

Now these children are like a great many other children who love to see their mothers "look pretty." Most husbands have the same feeling about their wives. They like to see them "dressed up." I believe that the breach between a man and his wife whom I know is widening partly because of the fact that he has a great liking for seeing a woman neatly and prettily dressed, while she "runs to wrappers" to a discouraging degree. He often goes out alone to concerts or evening lectures because she finds it "too much bother to dress up." Her children note the difference between her and the mothers of their playmates into whose homes they go, and the comparison is to the disadvantage of the mother who does not "dress up."

I once heard a lady say that when she felt a fit of the "blues" coming on she could always ward it off by taking a bath and dressing up in her very best clothes. Voltaire said that "Dress changes the manners." In this case it must also have changed the feelings. Indeed, neat and tidy dress often has that happy effect. The imitative faculty is very strong in the child, and if the mother never "dresses up" and falls into untidy ways the children of the home will be very likely to do the same, and that makes it bad for the husband and father, particularly if he is a man who likes to see people neat. When neither father nor mother ever take the trouble to "dress up" unless they are "going somewhere," the children are sure to be woefully deficient in neatness and tidiness.

The mother who would rather "dress up" for her husband and children than for anyone else is as wise as she is loving and true. The child who asked his mother why she never "dressed up like Joey Blank's mother" sounded a note of warning that mother would do well to heed. A downright untidy woman is a blot on the fair face of creation. I believe that more than one reader of this magazine will say "Amen" to that.

## Paper Cup Holder

The little holder illustrated is made from yellow crape paper and is large enough to hold an ice cup or the little paper cups used for serving desserts and ices. For each cup cut two pieces of the paper the size and shape of a saucer, and fold and cut them to form numerous petals, leaving them attached at the center. Unfold the paper and glue the two pieces together at the center to a piece of card-



## The Housewife

board about the size of a dollar. This forms a bottom for the cup. At the same time attach a piece of wire which has been previously wrapped with gum paper to resemble a stem. Each petal should be wired and when completed and bent into shape will resemble a tulip. If carefully made and not soiled they can be used a number of times, and will add greatly to the appearance of the table for a luncheon.

MARIE WILKINSON.

## Secrets of Old-Time Belles

The ladies of "ye olden days" were just as much, if not more, attentive to their beauty and its perpetuation than the twentieth-century maidens. The Boston "Saturday Evening Gazette," speaking upon the subject, says that the beauties of the old days used powder—a very soft rice powder. They applied it to the face, especially to the nose and chin and forehead. The cheeks were left to their natural pinkness.

A lotion for pink cheeks was found in a wonderful milk of oranges, which was known throughout the south of Europe. It was composed of orange-flower water, into which was shaken just enough tincture of benzoin to make it milky.

They also had a cream of strawberries which tinted the cheeks beautifully. Into some almond oil there was stirred a little strawberry juice. The whole was then heated. To this was added some mutton suet. When cold the whole was poured into a big-mouthed jar, and the water, if there was any, was drained off. An aroma



CUP HOLDER

of strawberries remained. This was kept for use upon the face after a ride in the hot sun.

The mint of cream of those days was a wonderful thing for the healing of the hands, winter and summer, and it would be good even in this day. It had for a basis an ounce of mutton suet, and into this was dropped a sprig of mint.

The whole was heated, and while it was still hot a little sweet oil was added to it, about a tablespoonful of oil to an ounce of

the tallow. It was poured hot into a glazed jar and kept for anointing sunburned noses and rough hands, and for the preservation of the complexion.

The familiar camphor ice, used in those days as now, was made of such good stuff that it never failed to heal the skin. The recipe called for two ounces of mutton suet, which was placed in a double boiler. Then, when it was warmed, there was added half an ounce of the best oil. Into this there was stirred about half a teaspoonful of camphor gum in lumps as big as peas. These lumps were ultimately taken out and the material poured out to cool and become camphor ice.

It was a pretty fad of other days to take eggshells and fill them with the ice. Rib-



NECKTIE HOLDER

bons were then tied around them and the shells were swung from the side of the mirror with loops and ends.

Scenting cold cream is not a difficult task. Take your cold cream jar to the druggist and let him drop one drop of rose attar into it. The cold cream can then be melted, stirred and allowed to cool. If expense is a consideration, one can use oil of geranium, lavender or bergamot, or any of the cheaper oils instead of rose.

Exercise is of immense benefit in treating the skin. A woman should exercise until the skin is in a glow. She must exercise until she can feel that her lungs and heart are stimulated. Then she is ready for the skin lotions and for the scented bath.

The exercise upon which the belles of other days depended for their beauty was dancing. Dancing and horseback riding were the two diversions.

To make the neck smooth and round and pretty requires great perseverance. The neck must be massaged with cold cream, and it must be heated and massaged again. It must be continually treated and massaged again and again, or the lines will become fixtures.

## Necktie Holder

This useful article for neckwear or ribbons is made of cardboard fifteen inches

long and five inches wide. Roll cardboard and cover with pretty blue satin ribbon, allowing it to extend two inches longer than board. Cover narrow rubber with ribbon. Fasten to either end of cardboard to keep ties in place. Then tie all together at ends for hanging.

M. E. W.

## The Summer Hat

This dainty, useful summer hat is made of matting that incloses tea boxes. Take a piece eighteen inches in diameter, cut an opening in the center large enough to fit the head, then use for crown a piece fourteen inches in diameter and plait around opening for the crown. Stain all over with green dye, gather around edge lavender and green sateen; tie knots in straight piece of sateen five inches apart and trim front of crown. Turn up and fasten, then fill with knots of same, and you have a pretty summer hat for fifteen cents.

Another pretty yard hat is also made of the matting which incloses tea boxes, or of common floor matting. Take a piece eighteen inches in diameter. Cut an opening for the head. Line all with red swiss. Make a red swiss crown and a gathered ruffle around edge, and make tie of same one half yard long and three inches wide.

MARGARET E. WARDER.

## Housework an Aid to the Mind

Complaint is constantly being made concerning the drudgery of housework—the sweeping, the dusting, the baking, the making of beds, the caring for little children, all the varied and constantly recurring duties which make up the round of daily home life for the great mass of the people.

In the first place, it is not so much the women who labor at these tasks who so complain as it is the women who turn an honest penny by writing articles about them. The women themselves are too busy to complain. Nor do I believe that



PRETTY SUMMER HAT

in the great majority of instances they feel the disposition to do so.

Recently someone said to an educated Chicago woman who "does her own work," "How is it that you manage with all your duties to keep so bright, so fresh, so well abreast of all that is going on in the intellectual world, your judgment always so well poised concerning it all? I cannot understand it."

"You do not consider," was the reply, "how much time I have to think. My housework, once the habit of it is acquired, requires very little mentality. It is simply good exercise, quite as good, hygienically considered, as tennis or golf, and it gives me many hours for quiet thought. On the whole, I sometimes think my morning hours as profitably spent, even intellectually, as though I were playing 'bridge' or rummaging over a bargain counter."

Moreover, the toil of these women is sweetened by love. Their hearts are kept warm and true by faith in the love of those about them, and even deeper than that by a sense of the vital need of those dependent upon their ministrations.

And what of the men whose steady, unremitting toil is the support of these homes? The men at the plow, at the anvil, at the throttle of the engine, over the accountant's desk, in the lawyer's office, on the physician's ceaseless rounds—is there no drudgery in their lives? But they drudge for those they love, and, to their praise be it spoken, there are few among them who complain, although it is to be feared that not a few young men, by just this fear of want of appreciation on the part of women, do refrain from taking upon themselves the burden of home support.—Caroline F. Corbin.

## In the Kitchen

**MOLASSES CAKE**—One scant cupful of sugar, one cupful of New Orleans table molasses, one cupful of sweet milk or cold coffee, butter and lard the size of an egg, one teaspoonful of soda, flour just enough—about two and one half cupfuls.

**VICARAGE PUDDING**—Take four eggs, also their weight in butter, sugar and flour. Beat the butter to cream, and mix in the sugar. Whisk the eggs, yolks and whites together, add them to the butter; put in a little grated lemon peel, a grate of nutmeg, and lastly mix in the flour. Butter some cups and, having filled them half full, bake half an hour in a moderate oven. Serve with either raspberry or wine sauce.



From Original Photographure, Size 7x9 inches. Copyright, 1905, by The Ben Austrian Art Publishing Company, Reading, Pa.

WHAT IS IT?



## Lessons Learned from Trained Nurses

BY HILDA RICHMOND

[CONTINUED FROM LAST ISSUE]

WITH little patients the getting well is sometimes the most tiresome period, and sometimes men, who are strong and scissible in health, fret like spoiled babies when shut up by illness. If the amateur nurse has learned to husband her strength she will be able to meet the exacting demands of this period, but if not it is apt to be a sorry time for the whole household. One thing required more than anything else is firmness. The nurse must be obeyed, but the best obedience comes from the wisely managed people who never realize that they are being managed. Instead of show-



RIBBON EMBROIDERY

ing in your manner that you are at your wits' end it is well to divert the patient's mind to some other thing. Playing games is one of the best ways of keeping patients, large and small, contented in their beds or rooms until the doctor allows more freedom, and most trained nurses are skilled in the art of playing popular games.

During convalescence visitors are judiciously admitted and told exactly how long they may stay, unless the patient is out of all danger and welcomes the sight of friends after tedious confinement. The nurse usually keeps within hearing distance to lead the conversation from exciting topics and warn visitors by a look if they are remaining too long. All sensible people are anxious to avoid injury to the patient, and the other kind should never be admitted to the sick room. It is during this period that books and papers are allowed for short times, for the patient's eyes are weak, and he may injure them for life if not watched.

Fresh air and sunshine are great physicians during convalescence. The trained nurse knows all about the virtue of sunbaths. Well protected from cold, the patient lazily basks in the sunshine, taking in life and health with every moment, and the old, dark sick room is passing away forever. Nothing warms and invigorates like the sun, and the nurse who gets her patient often into its beneficent rays has surely learned one important lesson well.

It sometimes pleases the patient to write letters to his friends while he is waiting to get out, or transact a little business. By all means let him begin to get in touch with the outside world if he is more contented and happy in so doing. In many of the best hospitals the patients begin to scribble letters as soon as they can hold a pencil, and delight to read those from their friends as soon as their shaky fingers can manage the envelopes. The things that seem foolish and trivial to healthy persons are all-absorbing to the sick, and their whims should be indulged as far as possible. An invalid who had been confined to a large chair for many weeks found her greatest pleasure in wiping dishes and preparing vegetables for cooking. The dear soul never suspected that the trouble of carrying the things to her, spreading newspapers on the floor, for her hands were unsteady, tucking her in with large aprons and otherwise waiting upon her was more than the help gained, but she was happy in doing her little tasks, and her wise daughter-allowed her to fuss all she pleased over the potatoes and beans.

People who are getting well like to receive attentions, and the wise nurse never forgets to tell just how many people called or what the paper said about the patient. The man who sneers when the local paper calls him a "prominent farmer and highly respected citizen" when he is well is touched by the attention shown during his illness, and requests his wife to save the copy speaking of "The many friends of John Smith will rejoice to know he is much better," when he is on his back with some illness. Even if people cannot be admitted to the sick chamber it pleases the patient to hear that they asked about him and sent indigestible puddings and wonderful jellies.

So by degrees we are learning from the trained nurse to use common-sense methods in the sick room. We know better



## The Housewife

than to wear creaky shoes, to whisper, to rock back and forth while talking to the patient, to criticize his doctor in his presence, to press food upon him when he is too ill to protest, to keep from him cold water, as in the days of old, and many other things, but there is yet room for improvement. We have yet to learn the value of regularity, cheerfulness, clean air, and dozens of other necessary precautions. To every family sickness must come some time or other, and it is well to know how to care for patients. Not everyone can afford a trained nurse, but everyone might visit a near-by hospital for object lessons in cleanliness, lack of extra furniture, and system. We may plan our homes so that one room shall be left uncarpeted, and only rugs used in case of sickness, and that room may be the sunniest in the house. During health it will make an ideal bedroom, and in illness is the very spot for the patient.

By all means learn what you can from trained nurses, for it will be useful in the days when sickness invades your home.

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### Economical Pickles

Two women were doing their Saturday's shopping together. One ordered a bottle of sweet pickles, and the other a couple of quarts of common sour pickles. The first one also ordered a pint of chow-chow. For the latter she paid ten cents, for the former twenty-five cents for a so-called pint bottle.

The first woman had a quart of large cucumber pickles and big pieces of cauliflower, and one quart of smaller pickles, all small cucumbers. For these she paid five cents and ten cents a quart, respectively.

As they went out one woman remarked to the other that her people did not care for the sour pickles, and oh, that it did cost so much for the nicer kinds.

The other woman laughed, and after a little hesitation, which was owing to the slight note of scorn in the first woman's voice, she proceeded to tell how she had all kinds of pickles at slight cost.

"I get the two grades," she said, "and

into this the French-mustard, sometimes I make a spiced vinegar and put with it. Either way it is well liked.

"Now for my sweet pickles. For those I use these little cucumbers. I heat sufficient vinegar to cover the amount of pickles I have, add half a teacupful of granulated sugar to each quart of vinegar, and also put into the hot vinegar a few drops each of oils of cinnamon, cloves, and whatever other spices I fancy. You must be careful not to get too much of the flavoring spices. I use the oils, as they do not give the vinegar that dark, cloudy look that the ground spices produce. Pour this boiling hot over the pickles, and leave for a few days.

"I often think that if I lived in a small town where I had a garden I would make all my own pickles from my garden, just as the cucumbers and various vegetables were ready. I have had country friends put up the cucumbers for me in brine, but find that all the work it makes in freshening the pickles and then the extra price they cost me, makes it more expensive than getting them in this manner. I am careful never to buy pickles soft with acid vinegar. Try my plan and see if you do not find it better than your present one."

MAY MYRTLE FRENCH.

\*

### Rococo or Ribbon Embroidery

We illustrate a very handsome sofa-pillow cover, stamped on tan satin, and partly embroidered in narrow rococo ribbon No. 2 in beautiful Dresden colors. The flowers are worked in shaded pinks, from the lightest to deep rose, old shades of rose and light yellow, representing decayed roses; the leaves are in shaded greens, and the scroll in flat embroidery worked with filo embroidery floss.

This style of needlework originated in Paris, that center of new ideas. It is the richest of all embroidery work and the easiest to learn. A very intricate piece of the work can be made in a short time. It lends itself to floral decorations on fancy bags, table-covers, portières, as well as artistic gowns, hats, vests, collars and cuffs, etc. The narrow French ribbon, so

where an art department is kept; also books of instruction in the art, which is exceedingly rich in appearance and fascinating to do.

HEISTER ELLIOTT.

\*

### Left-Overs

Half a cupful of carrots. Cut into slices, add an equal quantity of potato, cooked and sliced; stir into a thick cream sauce. Serve with minced parsley on top.

Half a cupful of beets. Cut into small pieces. Combine with four tablespoonfuls of pecan meats broken in halves; also a little celery. Toss in French dressing and serve in lettuce cups.

Half a cupful of peas. Add dissolved gelatine to a large cupful of highly seasoned stock. Strain. When it begins to set, stir in the peas lightly. Mold in



SOFA PILLOW

small cups. Garnish with wreath of parsley and curled celery. Serve with mayonnaise.

Half a cupful of cabbage. Combine with an equal amount of cooked celery. Cut into inch lengths. Add a cream sauce, seasoned with a few drops of Worcestershire. Cover with buttered crumbs and bake in ramekins.

Half a cupful of tomato. To the tomato add four tablespoonfuls of shelled, chopped peanuts, butter the size of a walnut, one tablespoonful of bread crumbs. Cover with crumbs. Bake in shells until brown.

Half a cupful of beans. Cut into small pieces. Add half a cupful of boiled potato, sliced, a suspicion of onion and a few walnut meats, broken. Serve with French dressing on a bed of watercress.

Half a cupful of onion. Reheat. Press through a colander. Add to a thin cream sauce. Serve in bouillon cups with saltines.

Half a cupful of potato. Cube. Prepare two hard-boiled eggs. Slice. Place in ramekins a layer of potato, then one of egg. Repeat. Pour over a cream sauce. Grate cheese on top. Set in oven until heated through and slightly brown.

Half a cupful of asparagus. Cut into inch pieces; heat, and heap on small rounds of fresh buttered toast. Surround with scrambled egg, over which has been scattered minced parsley.

Half a cupful of corn. Prepare three medium-sized tomatoes, scoop out the center; fill with the corn creamed. Bake in oven until tomatoes are tender. Pour over each a heaping spoonful of cream sauce.

Half a cupful of celery. If it has already been creamed, wash carefully, cut in crescents, simmer in beef stock until heated through.

Half a cupful of cauliflower. Separate into tiny flowerets. Place on slices of tomato. Pour over it a French dressing.

By making use of these discouraging-looking left-overs in this way, savory dishes can be made for three persons.—Clara Cochrane Cody.

\*

### Pretty Pillow for Sofa

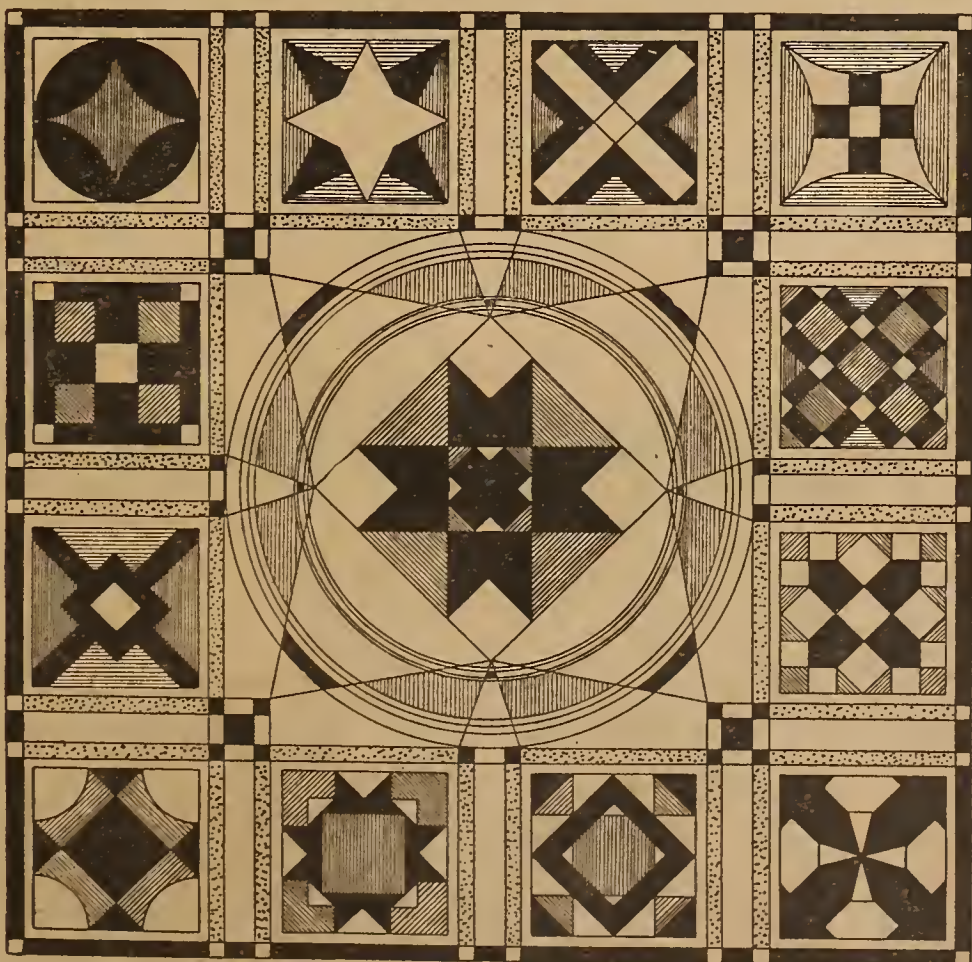
A lovely sofa cushion is made of a handsome shade of green and tan leather. Cut design out of green and mount on background of tan; paste on good and firm. Before pasting cut away many little designs and paste under same gold braid mounted on a canvas as a body. When finished line with same shade of tan to match body. Lay top and back together and punch holes through both and lace with leather strings one fourth of an inch wide. You can use leather, burlap, velvet or silk very successfully. This design makes a beautiful centerpiece as well as cushion.

M. E. W.

\*

### An Economical Meat Pie

Cut up about one and one half pounds of beefsteak in thin strips, put a layer at the bottom of a pie dish, then a layer of sliced onions and sliced potatoes. Fill the dish in this way, putting seasoning between each layer; nearly fill the dish with water to make gravy. Cover the top with an ordinary crust and bake for two hours and a half.



QUILT BLOCKS

Drawn by Arthur J. Ransom

find that for some purposes the large, and therefore cheaper, pickles do as well as the picked ones. For my chow-chow I cut these into about inch pieces, and making a nice mustard by a French recipe, I put this mustard over the fire, get it very hot, and then pour it over the cut-up pickles. In a couple of days it is ready for the table and tastes just as good as that for which you have just paid four times as much.

"Then I make in almost the same way a relish that we all like, and which is especially nice with meats. I put on the second largest cutter to my meat chopper and run the pickles through that. Sometimes I stir

beautifully shaded, brings out each petal with exquisite naturalness of color.

Thread a long-eyed, slender needle with a short piece of the ribbon, and work right through the goods (on the lines stamped) with the ribbon. The petals and leaves consist of one stitch, the roses are first outlined with different shades of ribbon around a raised center, which consists of three stitches crossing each other. Some roses are worked from light to dark, other from dark to light. In this manner the result is more pleasing.

Stamped and also started pieces of this work can be purchased at first-class stores

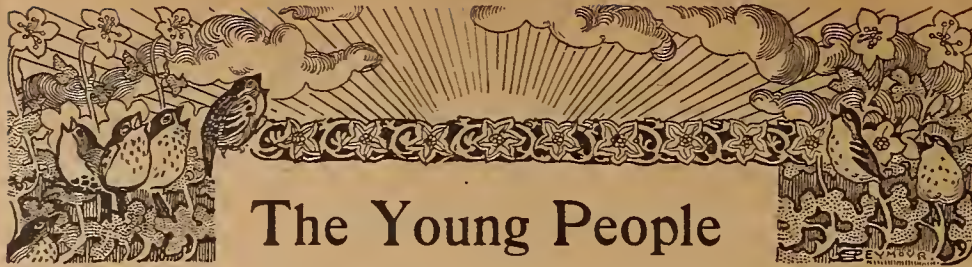


## Children of the City

BY FELIX FANON

I SUPPOSE that most of the boys and girls who read this live in the country, and no doubt they think that it must be very, delightful to live in the city, where there is so much to see and hear, and where there is something "going on" all the time. I know that I used to feel that way about it when I was a boy. I used to envy any boy who could live in the city. Now I envy anyone who can live in the beautiful country. It is the place to live. It has delights far beyond those that the city offers to thousands of boys and girls. I have lived twenty-five years in the large cities, and have seen so much of the conditions under which many of the children live that I wish I might send thousands of them to the country, where they could live under far healthier and happier conditions than those under which they live in the city tenement houses, or even in the well-arranged flats.

The children of the poor live miserably in many parts of our great cities. Hundreds of them live under one



## The Young People

hands and you boys told the truth, "Honest Injun," I don't think that there would be many hands raised.

Of course there are playtimes in the day nursery, and the children play with a will. The attendants are on hand to quell anything like a quarrel, but, truth to tell, there are very few quarrels. For one thing, the surroundings of the children are so cheery that they don't feel much like "kicking up a row" amid them, and the influence of the nurses and teachers is such that the boys and girls get along together very well. But noise! My! but they make a lot of it! However, the city is such a

ful place in hot summer weather.

You boys and girls who live in the country are fortunate in being able to live there, particularly in the summer time. Yes, and you are fortunate in being in your comfortable country homes even in the winter months, if city life meant to you what it means to thousands of city children whose parents buy coal by the basket and the whole family must huddle around one stove with not much coal in it.

Be in no haste to exchange the country for the city. Be not deceived by the alluring tales one reads about the great successes country boys have made when they have gone to the city. Nothing is said of the thousands of country boys and girls to whom success does not come in the city, and who are living in little hall bedrooms in cheap boarding houses and earning barely enough to feed and clothe themselves. The children of the country are very much better off than most of the children of the great cities. I have lived many years both in the country and in the city, and the country is the place to live.

## Happy Milly

BY HILDA RICHMOND

Milly was such a smiling girl that everyone called her Happy Milly, and she was happy all the time. Mattie said it was because everybody was so nice to her, but mamma told Mattie if she were as sunny and nice as Milly everyone would be nice to her, too.

"Can't Milly take care of baby, mamma?" whined Mattie one pretty summer day. "I'm tired of building block houses for him."

"Milly is doing the errand you said you were too tired to do," said mamma. "You have only built two houses for Charley."

"Well, he pushes them right over, so it's no use to build them," said Mattie. "I don't see why I have to stay in the house all the time with him."

"I'll take him out in his go-cart," said Milly, coming in just then. "Want to go by-by, honey?" Charley scrambled up as fast as his fat legs would move, and ran to hug Milly till her hat fell off. "By-by!" he cried, and waved his chubby hand.

So Mattie could curl herself up in a corner of the lounge with her story book and have a good time while Milly pushed the cart down the shady street. Mamma sighed as she looked at her selfish little daughter, but she said nothing, for she knew Milly would have a happy time even if she did have to take care of the baby.

"Oh, mamma, we've had the loveliest time," cried Milly, coming home an hour later. "Mrs. Slater called me in and showed me all the pictures of her magic lantern. She bought it for little Mary Slater and is going to send it away this evening. Baby was lovely and had the best time watching the pictures. The house was all dark and she threw the pictures on a big sheet."

"That's just the way," grumbled Mattie. "Everything nice comes to Milly. I never get to see a thing."

"You had a good time with your book, Mattie," said mamma, "but you have a bad habit of thinking nothing pleasant happens to you. If you look in the mirror you will see that a little frown has come to stay on your face unless you try very hard to get rid of it. Naughty thoughts spoil our faces and make people think we are selfish and cross."

I hope no one who reads this is like Mattie.



PLAYTIME IN THE SCHOOLYARD

roof in some of the big tenement houses in what is called the "congested" parts of the city. Families of eight and ten live in two or three rooms. Indeed, some Italian families of six and eight live in three rooms and *keep boarders!* I was once in a tenement in which a man and his wife and their six children slept in a single room on the fifth floor of a big, wofully dirty tenement house.

What do you suppose a poor woman with two or three children under five years of age does when she goes away from home to work all day? A great many mothers in the city have to be away from home and at work all day. These mothers take their little ones to what is called a day nursery. "What's that?" you may ask. Well, it is a place where poor mothers may leave their children all day long and know that they will be well cared for. I was in one of these day nurseries not long ago, and I saw forty-six babies in little white beds taking their midday nap. All of the children were spotlessly clean—a good deal cleaner than they would have been in their own homes. Nurses in white aprons and caps were on hand to give the babies any care they needed. They would get up at about three o'clock, and then they would be dressed and taken into a large, sunny and clean room where there were all sorts of toys and playthings for them. The older children would go to the kindergarten of the day nursery.

A poor mother can take her little ones to a day nursery at seven in the morning and leave them there until she calls for them when her day's work is done at night. If she is unable to do so she need not pay anything for having her children cared for in this way. One very wealthy woman in the city of Boston, Mrs. Quincy A. Shaw, supports five large day nurseries entirely at her own expense. Several hundred little people are cared for in these nurseries. Some of them have connected with them schools for older children. Boys are taught carpentering and chair caning in some of the schools, and a great many meetings are held for the mothers. The little girls are taught to sew, and while they work at their sewing someone reads to them. One thing is insisted upon, and that is that all of the boys and girls must be perfectly clean and neat. Shabby they must be, most of them, for they do not know what it is to have a new suit of clothes purchased expressly for them. Some of them feel grateful because they can have the cast-aside clothing of those more fortunate than themselves. But soap and water are cheap, and if a child comes dirty to a day nursery that child must at once make good use of soap and water and combs and brushes. Of course the boys in particular do not like that very much. What boy in any environment is fond of soap and water? Don't all speak at once. If I were to call for a show of

noisy, distracting place that people never mind a racket that would tell a good deal on the nerves of the resident of the country.

Of course there are hundreds and thousands of children who never go to the day nursery. They stay in their own homes when mother and father are both away at work, and some older sister or brother "sees to them." Some of them are not "seen to" very much, and in fine weather they live on the street. Dirty? Don't men-



READING AND WORKING



## More and More Beauty on the Farm

It is interesting to note the tendency among farmers to make the home surroundings more beautiful. One does not need to ride far through the country at the present time to be convinced that with every passing year men are putting more time and labor and money into beautifying their farms and making them more attractive. This disposition is one of the most pleasing possible to think about.

It is not so very long ago that in many parts of the country the home surroundings were, or seemed to be, about the last thing to receive consideration. There were a number of reasons for this. Many times the farmer would be poor, struggling under a burden of debt that seemed to close the way against his making any of the improvements which he knew in his heart of hearts would be desirable. Every cent of money he could get was devoted to paying off the farm debt or in getting the clothes needed for the family.

And then the desire to hoard money stood in the way with many. To have money to put in the bank seemed to be the one thing to be attained. So year after year every energy was bent toward that end. It did not so much matter what kind of clothes one wore nor what sort of a house he lived in, if only he could save something for the bank account.

It is a good thing that both these conditions are changing. Not that it is wrong to strive hard to clear up the debt. It is a good thing, too, to save something against the day when it may rain, and the storms shut one out from active life; but to make these things the highest object in life is not right. It dwarfs the soul and narrows every heart that comes within the range of its influence.

Sometimes it is not just clear what we can do to make the farm home more beautiful. Not all seem to have the ability to plan out ways and means to this desirable end. They would like to do something, if only they knew how to set themselves about it. You have seen homes where the outlay of just a small sum of money would work wonders. And the money was there, ready to be expended; only, some master-mind was needed to point out the way.

Suppose the house is an old-fashioned one, a story and a half high, built when there was a little money, and the style did not call for much in the way of beauty or comfort. Adding a simple porch to one side of such a house would add greatly to its comfort and taste. Then if the roof could be pushed up to make the upper story full height, how much of beauty that would give, saying nothing about the additional room that might be gained thereby. Such a change would not be very expensive. And all would enjoy the shelter of the porch, especially of an evening.

Another change that helps much is to build a deep bay window on one side of the house. We did that to an old house once. By closing two narrow windows on the west side and putting a wide bay window with five sashes to let in plenty of light we made that room look so much more bright and homelike. We placed plants in this window in the winter, the shelf, however, being always taken out in the summer. We all like to sit in that window. The good wife brings her sewing here. The boys and girls take their playthings to it, while the man of the house enjoys sitting there with his paper, and we all love to watch the sunsets from that beautiful corner.

Many farmhouses were built in early times low down to the ground. I do not know just why this was so, unless it was thought that they would be warmer if there were not much expanse of wall to admit the frost. At any rate, such houses were usually damp and the cellar underneath low and inconvenient. Such a house might easily be raised up out of the earth and made highly more desirable. Here, again, we have had a little experience. Our farmhouse when we came to it was so low that scarcely a foot intervened between the sill and the surface of the earth. The cellar was so low that we could not stand upright in it, especially if we had a basket of potatoes or apples on the shoulder.

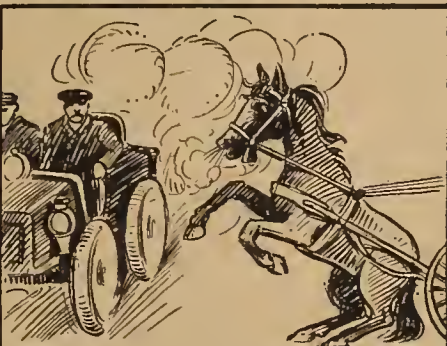
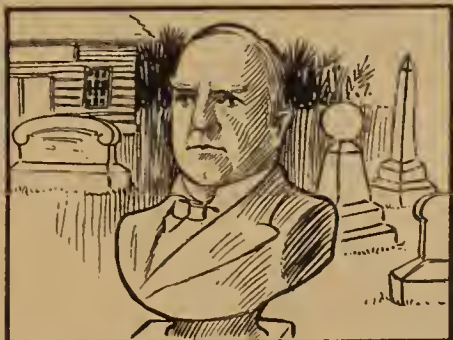
We scoured the country over for jack-screws with which to raise the house, for we did not want to break the walls any more than we could help. There was a long ell to the house, and we needed more than thirty screws to do the work properly. But we found them all right, and at a certain time we lifted the old house right up bodily and kept on lifting till we had it eighteen inches above its former location. That gave us a good high cellar, and how much better the house did look after that!

By training over the porch some of the beautiful climbing plants to be had at the present time one may make the old home look almost like a little bower. We have two clematis at the front of our farmhouse, one a beautiful white one and the



## The Puzzler

The Names of Six Vessels of the American Navy are Veiled in the Pictures Below



Answer to Puzzle in the April 15th Issue: Mantel, Washstand, Curtain, Rockers, Carpets, Bedclothes, Towel, Brushes

other a deep purple, while at the west end a lovely clematis paniculata sheds its perfume far into the cold days of autumn. The east end has an ivy, but we intend to take that away and put a Rambler rose in its place.

I well remember what a wonder it was to the good neighbors of that section when for the first time our purple clematis began to blossom. In all that country around there never had been such a plant before. As they passed that way, the farmer folks would stop and say:

"Won't you tell us what that lovely flower is? We never saw anything like it before."

And it was a pleasure to tell them about it. Now many of those farmers have the clematis trailing up the side of their porches.

And then, one may use his artistic taste in grading up about the house, and setting out shrubs and plants at different points around the yard. If added to this he keeps the grass always well trimmed in the yard he cannot fail to have an attractive home, particularly if he looks to the matter of paint.

But the house is not all. The barns and other farm buildings may be made just as neat and attractive as the house at a reasonable outlay of money. Utility is not everything. The worth of a life is to be measured by its influence on the building up of character. And surely a pleasant home does help to lift the mind above the ordinary cares of the world. Such a home will rest and cheer the tired body when one comes in from his daily duty. Just to walk about the yard and think of its beauty is a valuable education. To plan still further means for making the place still more beautiful will bring out the very best there is in a man.

The influence of such a home upon the community can hardly be estimated. It is natural for men to imitate one another. A good thought in your mind awakens a good thought in the mind of some other man. Throw a stick on the water and someone will think of the boat and finally of the great steamship. Plant a tree and it will not be long before someone else will be planting trees, too. Thus the whole community will be made better and happier.

The children of the home will come to think more of the farm and its beauty for every such thing one does. This is by no means a thing to be ignored, in these days when there is so much unrest. No matter where the boys and girls may go in after days, the recollection of the old home will draw them back, as a magnet brings the needle around in the box.

But finally, when we build a beautiful home we do something for those who come after us. The world builds to-morrow on the foundation stones that are laid to-day. We begin where someone else leaves off. Is not this thought an inspiration to do all we can in every way to make the farm as attractive as we can? By-and-by our boys and girls will be taking up our work and going on with it. Can we leave them a better inheritance than a love for nature and all that nature with man's help can do to cheer and inspire those who live near to her heart? Seems to me not.

EDGAR L. VINCENT.

## How to Open a New Book

Do you know how to open a new book? If you do not know, then you should surely read what "Modern Bookbinding" has to say on the subject:

"Hold the book with its back on a smooth or covered table; let the front board down, then the other, holding the leaves in one hand while you open a few leaves at the back, then a few at the front, and so on, alternately opening back and front, gently pressing open the sections till you reach the center of the volume. Do this two or three times and you will obtain the best results. Open the volume violently or carelessly in any one place and you will likely break the back and cause a start in the leaves. Never force the back of the book.

"A connoisseur many years ago, an excellent customer of mine, who thought he knew perfectly how to handle books, came into my office when I had an expensive binding just brought from the bindery ready to be sent home, and before my eyes took hold of the volume, tightly holding the leaves in each hand, instead of allowing them free play, violently opened it in the center and exclaimed: 'How beautifully your bindings open!' I almost fainted. He had broken the back of the volume and it had to be rebound."

## A Prince's Deep-Sea Experiment

Prince Albert I. of Monaco has made some remarkable experiments in exploring the depths of the ocean. He has made deep sea levels his one absorbing study for years. There is something quaint in the thought that this royal savant should be so closely associated with the frivolity of Monte Carlo, for he is the owner of the principality which remains the most perfect piece of medievalism in Europe, and where thousands of dollars are passed over the gaming table. On his yacht he has a laboratory, and he has invented great nets for the purpose of fishing in the

extreme depths of the ocean. One is a great triangular net, with which many remarkable captures have been made. It is heavily framed in order to withstand the enormous pressure to which it is subjected at extreme depths. The other net is of hexagonal form.

Four years ago the courts of the principality decreed the judicial separation of the prince and princess. Princess Alice, who may be said to be the only American woman who has really occupied a throne, was originally Miss Mary Alice Heine, the daughter of a New Orleans Hebrew banker. Thirty-one years ago, while visiting Paris, she became the wife of Duc Richelieu d'Aguillon et Fronsac. After six years of life with the Frenchman, who claimed direct descent from the famous cardinal's sister, she was left a widow. In 1891 she became the wife of the Prince of Monaco.

## The Calf-Path

(Dedicated to the lovers of 'English as she is spelt.')

One day through the primeval wood,  
A calf walkt home, as good calves should;  
But made a trail all bent askew,  
A crooked trail, as all calves do.  
Since then two hundred years have fled,  
And, I infer, the calf is dead.  
But still he left behind his trail,  
And thereby hangs a moral tale.  
The trail was taken up next day  
By a lone dog that passed that way.  
And then the wise bell-wether sheep  
Pursued the trail o'er vale and steep,  
And drew the flock behind him, too,  
As good bell-wethers always do.  
And from that day, o'er hill and glade,  
Through those old woods a path was made,  
And many men wound in and out,  
And turned and dodged and bent about,  
And uttered words of righteous wrath  
Because 'twas such a crooked path;  
But still they followed—do not laugh—  
The first migrations of that calf,  
And through this winding woodway stalkt  
Because he wobbled when he walkt.  
This forest path became a lane,  
That bent and turned and turned again;  
This crooked lane became a road,  
Where many a poor horse, with his load,  
Toiled on beneath the burning sun,  
And traveled some three miles in one.  
And thus a century and a half  
They trod the footsteps of that calf.  
The years past on in swift fleet,  
The road became a village street,  
And this, before the men were aware,  
A city's crowded thoroughfare,  
And soon the central street was this  
Of a renowned metropolis.  
And men two centuries and a half  
Trod in the footsteps of that calf;  
Each day a hundred thousand rout  
Followed the zigzag calf about;  
And o'er his crooked journey went  
The traffic of a continent.  
A hundred thousand men were led  
By a calf near three centuries dead.  
They followed still his crooked way  
And lost one hundred years a day;  
For thus such reverence is lent  
To well-established precedent.  
A moral lesson this might teach  
Were I ordained and called to preach,  
For men are prone to go it blind  
Along the calf-paths of the mind,  
And work away from sun to sun  
And do what other men have done.  
They follow in the beaten track,  
And out and in, and forth and back,  
And still their devious course pursue,  
To keep the path that others do.  
But how the wise wood-gods must laugh,  
Who saw the first primeval calf!  
And many things this tale might teach—  
But I am not ordained to preach.

—Sam. Walter Foss.

## Rigors of Arctic Travel

Arctic explorers speak of different causes of misery which they encounter. Nansen reported that the thirst induced by the irksome labor of sledge hauling was most distressing. Though the Polar world is covered with frozen water, there is none for drinking purposes save that which is thawed, and it is almost impossible to get this on the march without halting to thaw it. Other explorers complain of the effects of the wind and sun. A very low degree of cold can be borne without undue discomfort so long as the air is still; but the moment it gets in motion it strikes the skin with effects very similar to those of a burn.

## When Three's Company

The wind howls 'round the house;  
We hear it swell and die,  
We three, shut in together,  
Fearing nor wind nor weather,  
Just you and Love and I.  
Life's bitter storms assail,  
The winds of Fate blow free,  
We closer draw together,  
And there's nor wind nor weather  
For you and Love and me.  
—Pauline Parker Carroll in American Magazine.



## Practical Fashions for Every Day



No. 745—Double-Breasted Shirt Waist

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-two-inch material, or three yards of thirty-inch material



No. 739—Yoke Waist with Epaulets

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-two-inch material, or two and one half yards of thirty-inch material, with three eighths of a yard for yoke and collar, and one and one half yards of lace for trimming

No. 740—Five-Gored Skirt with Ruffles

Pattern cut for 22, 24, 26 and 28 inch waist measures. Quantity of material required for 26 inch waist, twelve yards of twenty-two-inch material, or ten yards of thirty-inch material, with three and three fourths yards of lace for trimming



No. 698—Lingerie Waist with Yoke

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one half yards of twenty-two-inch material, or three and one half yards of thirty-six-inch material, with three fourths of a yard of all-over lace twenty-two inches wide for yoke, collar and tabs

No. 746—Gored Skirt with Gathered Flounce

Pattern cut for 24, 26, 28 and 30 inch waist measures. Length of skirt in front, 42 inches. Quantity of material required for medium size, or 26 inch waist, ten yards of twenty-two-inch material, or eight yards of thirty-inch material



No. 744—Lingerie Waist with Fancy Plastron

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one half yards of twenty-two-inch material, or three yards of thirty-inch material, with one half yard of all-over lace, two yards of lace for arm frills, five and one half yards of insertion, and four yards of edging

## NOTICE

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No. 748—Tailored Waist with Elbow Sleeves

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and three fourths yards of twenty-two-inch material, or two and three fourths yards of thirty-inch material



No. 743—Slip for Lingerie Blouses

Pattern cut for 34, 36, 38, 40 and 42 inch bust measures. Quantity of material required for medium size, or 38 inch bust, three and one fourth yards of twenty-two-inch material, or two yards of thirty-six-inch material for waist with puff sleeves. Or three and three fourths yards of twenty-two-inch material, or two and one fourth yards of thirty-six-inch material for waist with long sleeves



No. 747—Housewife's Apron

Pattern cut for 32, 36 and 40 inch bust measures. (Small, medium and large). Quantity of material required for medium size, or 36 inch bust, seven and one half yards of twenty-seven-inch material, or five and one half yards of thirty-six-inch material



No. 749—Princess Petticoat

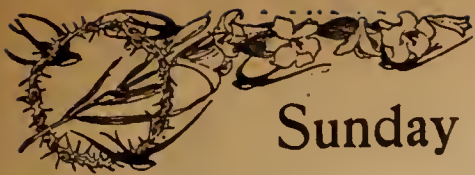
Pattern cut for 36, 38, 40 and 42 inch bust measures. Quantity of material required for medium size, or 38 inch bust, six and one half yards of twenty-two-inch material, or five yards of thirty-inch material, with three and one half yards of embroidery for ruffle

## PATTERNS

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## Sunday Reading

### The Christian Endeavor Movement

THE story of how the Christian Endeavor Society had its origin in Williston Church, Portland, Maine, and how it spread to other states and countries, has often been told. Mr. Henry B. Macfarland in a contribution to the pages of the "North American Review," declares with truth that no present-day philosophy can ignore the significance of such an organization as the Christian Endeavor Society, which is of immense value, not only to the individual church or to the individual state, but as an interdenominational and international league, binding the churches and the states together with the invisible ties of sympathy, affection and good purpose.

The basic principle of the organization, retained consistently from the beginning under the flexible plan of the founder, is that the active members shall both attend and take part in meetings, and shall as faithfully carry on the various kinds of work, always in and through the parent



DR. FRANCIS E. CLARK  
(Founder of the Christian Endeavor movement)

church and the leadership of its pastor. It could hardly have been in the mind of the founder, Dr. Francis E. Clark, a quarter of a century ago, that Christian Endeavor principles would ever be applied so generally throughout the world; but, as Mr. Macfarland points out, ingenuity has been equal to the problem. There are now associate as well as active members. These associates, while not church members, are willing to attend the meetings.

It is natural that a comparison should be made between the Christian Endeavor movement and the Young Men's Christian Association and the Salvation Army, each of which preceded the organization of the first Endeavor society by many years. General Booth and the late Sir George Williams, like Doctor Clark, were privileged to found new organizations and lead them to positions of great power in the world during their own lifetimes; but it is Mr. Macfarland's opinion that neither Sir George Williams nor General Booth has made a profounder impression upon the organization to which each has devoted his life than has Doctor Clark upon the Christian Endeavor societies of the world, over which he has no authority whatever, every one of them being absolutely independent, except of its own church.

### Rounding Up the Cowboys

Bishop Ethelbert Talbot, of the Protestant Episcopal Church of Pennsylvania, was Missionary Bishop of Wyoming and Idaho in the early days of his priesthood, and some of the stories he tells of his experiences with and among the cowboys are simply great. In "Harper's Magazine" for March he recalled a visit to a peculiarly tough mining town:

"As I walked down the street I saw advancing toward me an elegantly dressed gentleman, with large diamonds shining upon his spotless linen. There were seven saloons in a row. As I drew near my handsome young friend and was about to extend my hand, he surveyed me, concluded I was a parson and might wish to interview him on some subject with which he was not familiar, and suddenly disappeared into one of the saloons.

"Twice defeated, I went back to the hotel, and asked Colonel Burns, the proprietor, to let me have some large writing paper. In bold hand I wrote out a few notices. I announced that, as Bishop of Idaho, I had come to the camp, and would preach the next morning, Sunday, at eleven o'clock, and in the evening at eight;

that both services would be in the dance hall. All were cordially invited to attend. Then the colonel let me have some tacks. I soon discovered that my method of advertising was not likely to be successful. What more could I do? As I walked by the saloons I observed that they were full of men. If only I were not a bishop, I reflected, the problem would be easy of solution, for then I could go into the saloons where the men are and deliver my invitation in person; but how would it look for a bishop to visit such places, even with the best of motives? At last I became desperate. I selected the first saloon in the row. I went in. I introduced myself to the proprietor. I told him I was the Bishop of Idaho and had come in to pay my respects to him. He met me very cordially. 'Why, Bishop, I am proud to know you. What will you have?'

"I thanked him and told him I should be greatly indebted to him if he would kindly introduce me to those gentlemen, pointing to a large room back of the saloon, where the men were gathered. 'Do you mean the boys in the pool-room?' he asked. 'Yes, I presume I do.' Thereupon he came out from behind the counter, put his arm in mine in a familiar way, as though we had been boon companions all our lives, and escorted me to the open door of the pool-room. 'Boys,' he exclaimed, 'hold up the game. Put up the chips just a minute. This is the bishop right among us, and he wants to be introduced.' With a politeness and courtesy which would have done credit to any drawing-room in New York or Boston or Philadelphia, the men rose from their seats and welcomed me. I said briefly: 'Excuse me, gentlemen; I do not wish to interfere with your pleasure or your amusement. I have just come in to pay my respects to you. I am the Bishop, and am going to hold services in the dance hall to-morrow morning at eleven and in the evening at eight, and I shall be very glad to see you there.' I remember that one of them, evidently speaking in a representative capacity, thanked me for letting them know, and asked me again the hour, and assured me they would all be present. In this way I visited all the seven saloons in the row."

### Cousin Elizabeth's Sleeping Powders

Miss Elizabeth Wendell was a frail little body of delicate health, and nervous, and any unusual bit of excitement or effort overtaxed her.

A number of cousins were making a week-end visit, and the house had been full of gay chatter all day long. Miss Elizabeth had been a sufferer for years, and she knew well how to run away for a few minutes at a time to gather strength, for she liked to enter heartily into all the good times without casting a shadow over them. However, the day had been a good deal of a drain on her, and at nine o'clock, with strained face and tremulous lips, she asked to be excused, and bade them good-night.

They looked at each other in consternation as she left the room. "What a shame! She's used up again," they said. One of the cousins stole out to the kitchen and put the kettle over. A few minutes later, with a little face hot-water bag, freshly filled, she knocked at Miss Elizabeth's door upstairs.

The calm voice which answered her knock surprised her, and she pushed open the door. There sat Miss Elizabeth on the edge of her bed, wrapped in her bathrobe, evidently reading her Bible.

"Why, cousin Elizabeth," exclaimed the young woman, relieved to find her looking so comfortable, "you ought to be in bed this minute! What are you reading your Bible for, when you're so tired? I thought you did that mornings." And she shook her playfully.

"I do, dearie, always," returned Elizabeth Wendell, "before breakfast. I'm only taking a sleeping powder now. There's nothing like the good old Book to rest me when I'm overwrought. It is my quieting potion, and 'when He giveth quietness, who then can make trouble?' See the refreshing bit I've lighted upon for to-night, 'Without were fightings, within were fears. Nevertheless God, that comforteth those that are cast down, comforted us.' You don't know how that soothes me and puts to rest all the turmoil that nerves have made. I shall sleep now like a baby." Her eyes, though full of tears, had lost their distracted look, and the strained lines were all smoothed out of her face.

The younger cousin, without a word, kissed her, and went downstairs, thinking, —Grace Willis, in The Interior.

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## Of Curious Interest

### Historic Grapevine

**T**HE massive scuppernong vine illustrated on this page, is said to have been planted by the colonists on what is known as Roanoke Island, N. C. The vine to-day is still hearty and vigorous, covers more than an acre of ground and yields annually about a ton of

### The Oldest Tree in the World

The dragon tree of the Canary Islands is notable for the existence of individuals believed to be the oldest living vegetable organism in the world. The age of one tree, in particular, the once famous dragon tree of Teneriffe, has usually been estimated to be from 4,000 to 6,000 years, hav-



WOMEN OF THE NILE

(Illustrating Article on First Page of this Paper)

grapes. It is now on the farm of Mr. B. F. Meekins, in whose family it has been for upward of one hundred years.

The first expedition sent out from England by Sir Walter Raleigh, in 1584, consisted of two small barks commanded by Captains Amadas and Barlow. The vessels entered Pamlico Sound at New Inlet, North Carolina, about forty miles north of Hatteras, and they proceeded on their way in a northerly direction, arriving off Roanoke Island in July of the same year. Thinking this to be the mainland, a party was sent ashore, and here for the first time the flag of England waved in the breezes of the New World. Subsequently, in his report of the voyage to Raleigh, Captain Amadas makes the following reference to the native scuppernong grape, which he discovered growing so abundantly: "Which being performed (that is, possession taken) according to the ceremonies used in such enterprises, we viewed the land about us, being where we first landed very sandy and low toward the water side, but so full of grapes, as the very beating and surge of the sea overflowed them, of which we found such plenty as well there as in all places else, both on the sand and on the green soil, on the hills as on the plains, as well on every little shrub, as also climbing toward the tops of high cedars, that I think in all the world the like abundance is not to be found, and myself having seen those parts of Europe that most abound, find such difference as were incredible to be written."

### The Sultan's Auto

The sultan, who alone of all European sovereigns, has until now remained impervious to the attractions of motoring, has through the good offices of the Khedive of Egypt been induced to accept a present of a superb automobile from a well-known Parisian firm of manufacturers. His majesty, however, declined to get into the car or "devil wagon," as he terms it, until every bit of machinery had been taken apart and explained to him with a view of proving its solidity. Abdul Hamid is no lover of novelties; wireless telegraphy he characterized an "invention of the evil one," and ordered out of his presence the experts who came to demonstrate its power, with orders never to bring the apparatus before him again. He will oppose its introduction into the Turkish capital.

### Crown Prince "Settles Down"

Since his marriage the German crown prince has turned over a new leaf and is settling down strenuously. He is full of plans for developing his princely estate at Oels and has promised to double the salaries of his employes if they produce the best wheat and rye in Silesia. He talks of cultivating beets and manufacturing sugar on his own land, and has started building model cottages for his tenants.

known as dragon's blood, found in the sepulchral caves of the Guanches, and supposed to have been used by them in embalming their dead. It is said to have been at one time an important article of export from the Canaries, and has never fallen entirely into disuse.

### The Gorilla in Battle

Many stories have been told of gorillas who, in attacking each other or men, used clubs as weapons. It is very doubtful if that is true. They have abnormally strong, sharp teeth, and in all authentic tales of their battles they seem to depend largely upon them. With their teeth they can make a wound as smooth and clean as with a surgeon's knife. When they fight they grasp their adversaries with both of their long, hairy hands and, drawing them up close in an all-too-strenuous embrace, they sink their teeth into the faces or limbs of their opponents.

Their most effective mode of fighting with each other is to catch the creature by the wrist and bite off a finger. Minus fingers and toes an orang-utan is practically helpless, for he cannot fight any longer. He soon afterward succumbs to starvation, or is disposed of by some other animal, for he cannot climb trees either for protection or food.

### Indian Proverbs

The coward shoots with shut eyes.

No Indian ever sold his daughter for a name.

Before the paleface came there was no poison in the Indian's corn.

Small things talk loud to the Indian's eye.

When a fox walks lame old rabbit jumps.

The paleface's arm is longer than his word.

A squaw's tongue runs faster than the wind's legs.

There is nothing so eloquent as a rattle-snake's tail.

The Indian scalps his enemy, the paleface skins his friends.

There will be hungry palefaces so long as there is any Indian land to swallow.

When a man prays one day and steals six, the Great Spirit thunders and the evil one laughs.

There are three things it takes a strong man to hold: A young warrior, a wild horse and a handsome squaw.—From Sturm's Statehood Magazine.



SCUPPERNONG GRAPEVINE ON ROANOKE ISLAND, N. C.

Photo by A. D. Dart



## Crime and the Farm

**C**RIMINALS are not bred upon the farm. They are the product of the cities and towns if statistics are worth anything. These seem to be days when the farmer is coming into his own, as regards his relative standing in the social fabric, and the latest praise of the farm is the fact that has lately been brought before the country, to the effect that crime does not flourish upon the soil.

Recent figures show that of all of the convicts confined within the prisons of New York State, only one per cent were born upon farms. Of the total population of the state probably forty per cent were born in the country. Thus the sixty per cent of city-bred population furnishes ninety-nine per cent of the criminals.

The virtue of the agricultural communities is not an accident. There is a reason for it—several of them, in fact. Without a single figure it would be easy to demonstrate that the standard of honesty and integrity and virtue are higher in farming communities than in the cities. It does not require a profound student to get at the basic principles of this condition of affairs either in the cities or the country.

Probably the greatest incentive to do right comes from being known in the community, from having an identity, as it were. It is an old saying that in the rural communities everybody knows everybody else's business. That is the secret of it. Everybody knows everybody else's business, and a man whose business is known is going to struggle mightily to have a respectable business. It is harder for him to commit a crime and escape punishment or detection, and that in itself is a curb upon criminal tendencies. The easier it is for people to sin and escape detection, the greater the inducement to sin.

But there is still a better reason why the farmer and the children of the farmer are not inclined to be criminals. There are no sharp practices in the art of making a living upon the farm. When a man undertakes to secure his sustenance from the soil, "smartness" and cunning do not avail anything. There is no chance to practice duplicity. There is but one way to secure food and raiment from the farm and that is by hard work. There is no chance for the laggard to cover up his laziness, as is the case with other artisans. Nature cannot be lied out of a harvest. Bluffing and bragging and deception never produced a bushel of corn. Weeds do not fear any trick except a hoe in honest hands.

The very art of farming is based upon honesty, rugged, self-respecting honesty. There can be no padding of accounts, no poor workmanship palmed off on the fields and orchards, no delusion when it comes to causing things to grow. And those things—all of them—are the handmaids of the crimes that are fostered in the cities.

It is a notorious fact that the standard of virtue is highest in the more sparsely settled communities, and that the standard of virtue is lowest in those communities where the population is most congested. That is not only true in this country, but all over the world, in India, in England, in France, in Russia—everywhere. It may be due, primarily, to the fact that Want causes selfishness, and selfishness is a crime and begets other crimes, but it is true, nevertheless. There is less of misery and want in the country than elsewhere, less of selfishness, more of kindness—a higher regard generally for the rights of others. There is more of coöperation in the country, and coöperation makes people kin. Crimes are not, as a rule, committed against the members of the criminal's family; rather against strangers. A farming community is more nearly one great family.

These are all conditions tending to make agricultural people necessarily more honest than the people of the cities. But there are still other reasons why the boy born upon a farm is less likely to end his days in prison than is the boy born in the city. Those reasons are more due to Nature than to ethics.

The farmer boy is in harmony with his surroundings. The bounding blood of youth has room for its desires. The city boy is circumscribed in his every action. He cannot throw a stone without running the risk of incurring someone's displeasure. He may not pluck a flower or twig or leaf without opposition. Any healthful sport he may want to indulge in is repressed. His shouts of laughter call down upon him the curses of the neighbors. He is compelled to be cunning from the time he is old enough to toddle out upon the lawn, if he is fortunate enough to have a lawn. If he is not, he is an outlaw as soon as he gets upon another's lawn.

The sports of the boy in the country are saner and more wholesome than the sports of the boy of the city, the surroundings of the country boy more sanitary. It is not necessary for him to be "bad" in order for him to follow the dictates of his boyish heart. He grows to manhood with a higher



## Miscellany



regard for the property rights of others than does the city boy. To him society is not an enemy, but a friend. He is not so skeptical, he understands more of the advantages of helping others when they need help, he views the world in a more satisfied way than does the fellow of the densely populated sections.

Then, the love of nature, the appreciation of the beautiful, the knowledge of the humbler things—they all pay a dividend in good citizenship. The country boy has absorbed them to a greater extent than has been possible with his city cousin. He has learned the perfume of the flowers from smelling them. He has been a part of nature and he has not had to depend upon the picture books. The birds and the bees and the insects, the horses and the cows and the sheep have been his friends and companions. He bursts forth at maturity a man, full-rounded, law-abiding, sentimental, loving, hopeful, honest. That is why in the great state of New York only one per cent of the criminals are farmers' sons and daughters.

GEO. F. BURBA.

## "A White Man's Country"

So much enterprise is developing in British South Africa that Consul General Washington, of Cape Town, calls it, in a letter to the Bureau of Manufactures, "a white man's country." The whites now number 1,355,000 out of a total population of 6,333,000. He directs attention to the various lines of American goods salable there, and to the fact that many Americans are successfully taking part in the country's development. An American insurance company has just completed in Cape Town the finest office building in South Africa, similar to their Philadelphia structure.

The heart of Africa, unknown fifty years ago, is now penetrated by railways, and the Victoria Falls and Victoria Nyanza are familiar names. The Falls, which rival Niagara, are now reached from Cape Town by the modern train de luxe, with electric fans, shower baths, sleeping and dining cars, and private saloon cars for the very rich. The principal articles exported from the United States into Cape Colony in 1904 amounted to \$8,331,000, out of a total of \$106,000,000, and into Natal Colony \$5,348,000, out of a total of \$52,000,000.

## The Hen

Alas! my child, where is the pen  
That can do justice to the hen?  
Like loyalty, she goes her way,  
Laying foundations every day.  
Though not for public buildings, yet  
For custard, cake and omelet;  
Or, if too old for such a use,  
They have their fling at some abuse,  
As when to censure plays unfit  
Upon the stage they make a hit;  
Or at elections seal the fate  
Of an obnoxious candidate.  
No wonder, child, we prize the hen;  
Whose egg is mightier than the pen.  
—The Guilder.

## The Right Sort of Girls Don't

Show men how fond they are of cash and dress.  
Indulge in "rough-house" play when the boys are present.  
Make a point of attracting the notice of men in public places.

Neglect the usages of polite society when at home.  
Forget that there is a time limit to youth's attractiveness.

Make the home of a friend more congenial than their own.  
Go off on trips which are not mentioned to parents.

Fall into the habit of frowning at mother when she speaks to them.  
Lend their aid toward making a brother selfish in his home life.—Modern Women.

## States Own Railways in Germany

Writing in "Everybody's Magazine," Mr. Charles Edward Russell says that thirty-five years ago the people of Germany began to recognize two facts—first, that whoever owns the country's transportation service owns the country; and second, that the national highways were needed for national use. During the Franco-Prussian War, the government had found the railroad companies exorbitant in their charges, unreasonable, and given to "grafting" when it came to transporting troops and supplies.

These discoveries alone, however, were not sufficient to embark the country on a policy of government ownership. Mr.

Russell reminds us that railroad developments at that time in the United States had their part in converting public sentiment in Germany to the state-ownership idea. It was the time of Tom Scott, the Pennsylvania monopoly, Jay Gould, the wrecking of the Erie, and the beginning of legislative bribery as a fine art. These things were all reported and fully understood in Berlin, and the fact that our American railroads were able to control legislation, nullify laws, and operate illimitable schemes of public plunder made a strong impression on the German mind. Furthermore, American railroads had proved undesirable investments for German capital, and on the whole there was a strong reaction against the private system, and the government determined, as a matter of safety, to run its railroads on its own account. Prussia, the greatest of the German states, began the campaign for the acquisition of railroads. The man who succeeded in wresting the railroad system



ALBERT VON MAYBACH

(Who established government ownership of railroads in Germany)

from the hands of individuals in Prussia was Minister von Maybach. This man's methods were drastic and effective. Von Maybach went quietly into the market and bought the control or one or two railroads. On these he instantly slashed all the rates and reached out for all the business. In this way he soon gained the mastery of the competing private company, which in the end was glad to make the best terms it could with the minister. One by one, von Maybach added new lines to his system, until he was practically master of the situation, and the remaining companies surrendered at discretion.

Other German states followed the example of Prussia, and so the private ownership of railroads all over Germany gradually passed away.

The German train schedules are slower than ours, but of the nine hundred million passengers a year very few are killed or maimed in accidents. In fact, Mr. Russell declares that every week we kill more people on our railroads than are killed on the entire German railroad system in a year. But the German people object to being killed, and we do not.

## Not too Bashful to Eat Cake

Little Algy was invited over to the neighbor's for dinner, and the first thing that caught his eyes was a big cream cake. He declined soup, fish and turkey, and his hosts feared he was so bashful he would not eat.

"Now, Algy, what are you going to have?" was asked.

"Cake."

He was given a generous slice, and in an incredibly short space of time it had disappeared.

"What will you have now, Algy?" he was asked.

"Cake."

Another piece went the way of the first.

"Would you like something else, Algy?"

"More cake."

"I'm afraid you will have bad dreams if you eat so much of that rich cake." Algy was silent.

"Can't I give you something else?"

"Yes, cake."

"Well, you can have one more piece, but I know you will have bad dreams."

The next morning early Algy appeared at the door of his late hosts. "I just came over to tell you that I didn't dream nothing," he remarked. "Can I have some more cake?"—New York World.

## Casey at the Bat

BY PHINEAS THAYER

(Published by Request)

It looked extremely rocky for the Mudville nine that day;  
The score stood two to four, with but an inning left to play.  
So, when Cooney died at second, and Burrows did the same,  
A pallor wreathed the features of the patrons of the game.

A straggling few got up to go, leaving there the rest,  
With that hope which springs eternal within the human breast,  
For they thought: "If only Casey could get a whack at that,"  
They'd put up even money now, with Casey at the bat.

But Flynn preceded Casey, and likewise so did Blake,  
And the former was a puddin', and the latter was a fake,  
So on that stricken multitude a deathlike silence sat,  
For there seemed but little chance of Casey's getting to the bat.

But Flynn let drive a "single," to the wonderment of all,  
And the much-despised Blakey "tore the cover off the ball."  
And when the dust had lifted, and they saw what had occurred,  
There was Blakey safe at second, and Flynn a-huggin' third.

Then, from the gladdened multitude went up a joyous yell,  
It rumbled in the mountain-tops, it rattled in the dell;  
It struck upon the hillside and rebounded on the flat;  
For Casey, mighty Casey, was advancing to the bat.

There was ease in Casey's manner, as he stepped into his place;  
There was pride in Casey's bearing, and a smile on Casey's face.  
And when, responding to the cheers, he lightly doffed his hat,  
No stranger in the crowd could doubt 'twas Casey at the bat.

Ten thousand eyes were on him as he rubbed his hands with dirt,  
Five thousand tongues applauded when he wiped them on his shirt;  
Then while the New York pitcher ground the ball into his hip,  
Defiance gleamed in Casey's eye, a sneer curled Casey's lip.

And now the leather-covered sphere came hurtling through the air,  
And Casey stood a-watching it in haughty grandeur there.  
Close by the sturdy batsman the ball unheeded sped—  
"That ain't my style," said Casey. "Strike one," the umpire said.

From the benches, black with people, there went up a muffled roar,  
Like the beating of storm waves on a stern and distant shore.  
"Kill him! Kill the umpire!" shouted someone on the stand.  
And it's likely they'd have killed him had not Casey raised a hand.

With a smile of Christian charity great Casey's visage shone;  
He stilled the rising tumult; he bade the game go on;  
He signaled to Sir Timothy, once more the spheroid flew;  
But Casey still ignored it, and the umpire said, "Strike two."

"Fraud!" cried the maddened thousands, and echo answered "Fraud!"  
But one scornful look from Casey and the audience was awed.  
They saw his face grow stern and cold, they saw his muscles strain,  
And they knew that Casey wouldn't let that ball go by again.

The sneer is gone from Casey's lip, his teeth are clenched in hate;  
He pounds with cruel violence his bat upon the plate.  
And now the pitcher holds the ball, and now he lets it go,  
And now the air is shattered by the force of Casey's blow.

Oh, somewhere in this favored land the sun is shining bright;  
The band is playing somewhere, and somewhere hearts are light,  
And somewhere men are laughing, and somewhere children shout;  
But there is no joy in Mudville—mighty Casey has struck out.



### The Dancing Boy's Complaint

My mother makes me awful mad,  
I wisht she'd let me be.  
But, dern the luck, she seems to think  
That she's a-runnin' me.  
Now, here I am dressed like a dude,  
At this here dancin' school;  
I might look clean an' sporty, but  
I feel jest like a fool.

The other kids keep guyin' me,  
Because I come down here;  
Sech things as "girly boy" an' "dude"  
They holler in my ear.  
Course, I can't blame 'em, 'cause I do  
Look mushy-like, an' yet  
If they don't cut that guyin' out,  
I'll punch some heads, I'll bet.

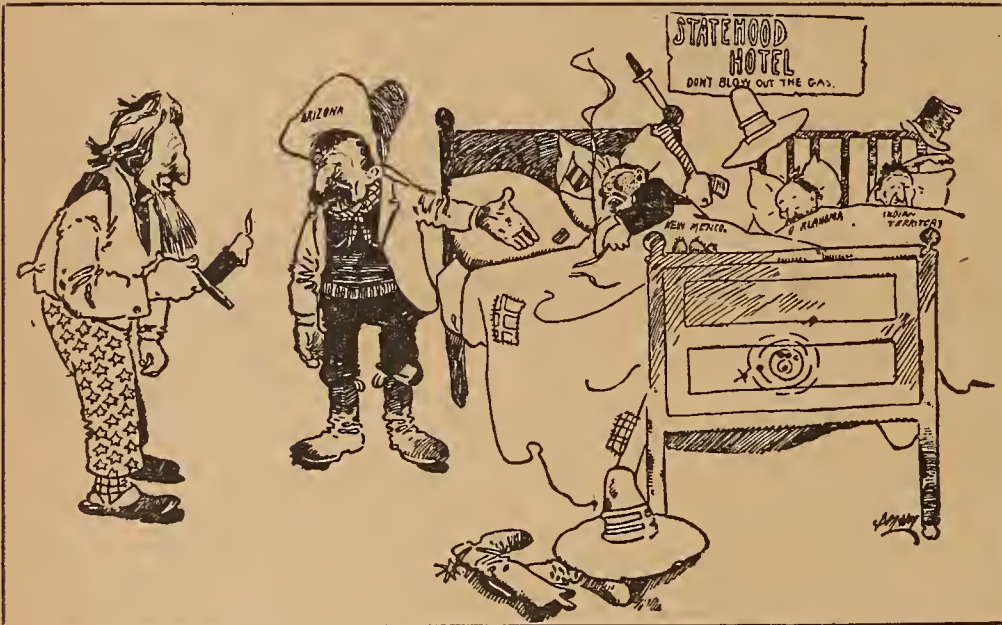
They ain't no fun in huggin' girls,  
But what else kin I do,  
With Mom a-settin' lookin' on?  
Doggone it, I feel blue.  
Mom says I'll be a gentleman  
In years that is to come,  
If she keeps sendin' me down here;  
I won't—I'll be a bum.

—Denver Post.

### How to Warm Slippers

"Young Wife" writes: "I am very fond of reading advice to newly married folk. Recently I saw a hint that every husband is gratified if he finds his slippers ready warmed for him when he comes home of an evening. Please advise me as to the proper way to warm slippers."

Go to the cellar and get a hod of coal. You should have a slow fire going in the kitchen range during the afternoon. Rake the coals down to a level bed and pour in the hod of coal and open the drafts. When the stovepipe shows red to the ceiling, and the top of the range is a cream yellow, and is so hot that a drop of water will evaporate when within two inches of the surface, close the damper and wait until the range cools down to 365 degrees



ARIZONA—"HAVE I GOT TO BUNK WITH THIS?"

Fahrenheit. If you have no thermometer, borrow one from the neighbor. (It is a small courtesy, but one that will be appreciated, if you suggest to your neighbor to bring her husband's slippers over and warm them on your range.) Put the slippers in the oven, close the door and go through the house, singing merrily to yourself. From time to time look at the slippers, turning them occasionally so that the heat may reach all sides of them. They are well warmed when the toes begin to curl. When this occurs, place them on the back of the range, covering them with a boiler lid. This will retain the heat. When you hear your husband coming up the steps, take up the slippers on a toasting fork and carry them to his den. Some practical housewives garnish with parsley, but this is a matter of choice.—Minneapolis Tribune.

### Chaplain Hale's Prayer

It is being told that W. R. Stubbs, accompanied by his little son, went into the Senate gallery the last time they were in Washington. Among the persons the boy was interested in was Edward Everett Hale, a magnificent-looking old man. His father told him that was the chaplain. "Oh, he prays for the Senate, doesn't he?" asked young Stubbs. "No," replied Mr. Stubbs; "he gets up and takes a look at the Senate, and prays for the country."—Kansas City Star.

### When Irving Was Turned Down

Bram Stoker, who for many years was connected with the management of the late Sir Henry Irving, tells of an amusing incident which occurred during the player's tour of the Middle West.

It appears that Irving, in order to break a "long jump" from Chicago to another city, was desirous of securing for one night the theater of a town in Indiana. Ac-



## Wit and Humor



cordingly, Stoker wired the individual who was both proprietor and manager of the playhouse in question, requesting that Sir Henry be given a night's engagement.

In a short while Mr. Stoker received the following: "Does Irving parade?" When shown this, the distinguished Briton was much amused. He directed Stoker to reply that "Irving was a tragedian, not a minstrel."

The further reply came, "Don't want Irving unless he parades."—Harper's Weekly.

### Not Exactly on the Market

After the newly organized band at Morrison had desisted from practice for a few nights the B-flat player found the valves on his cornet had stuck. He wrote to the factory asking what kind of grease to use on the valves. The house answered him, saying that cornet players used only saliva on the valves and never used grease of any kind. The B-flat player then wrote, "Gentlemen—Please send me twenty-five cents' worth of saliva. I can't get it at the store here. Inclosed find stamps for payment."

His reply has not yet been received.—Perry (Oklahoma) Republican.

### Tales of Forgotten Winters

"Speaking of warm winters," said an old inhabitant who wandered into the Lewistown (Me.) Journal office recently, "do you recall the winter of 1832? In that

ample attention, the congregation gave another sigh of relief. "Now that I have finished with the minor prophets and the major prophets, what about Jeremiah? Where is Jeremiah's place?" At this point a tall man arose in the back of the church. "Jeremiah can have my place," he said, "I'm going home."—The Argonaut.

### His Word for It

Mary was a good little girl for her eight years, with only one thing excepted; she would, on occasion, plague her younger sister Dorothy. Time and again Dorothy's diminutive mouth would be open in staccato yells that were not diminutive, and time and again was Mary punished, scolded, argued with, all to no permanent improvement. But the mother did not give up, and, at last, having in mind her eldest daughter's power of imagination, she determined to try an appeal to that. Mary was impressionable.

So there was a long "heart-to-heart" talk. God's infinite kindness was fully explained, also his love for little children, and the fact that he felt very badly whenever Mary teased Dorothy. "And if it should happen again," added the mother, "you'll have to go into the dark closet until you explain it all to God, and tell him you're sorry and won't be bad any more."

Days passed peacefully. The mother began to think she had conquered. But, one morning came again that howl from the nursery, seemingly more drawn out than ever, as though it had gained strength from rest. Dorothy was rescued; Mary was left in the closet to straighten things out with her Maker.

Scarcely had the door closed upon her, however, when her cheerful little voice rose in a song. She is bolstering up her courage, thought the mother, and paid no attention to the shrill little melody. But it did not cease; it even grew louder. The mother opened the door.

"Mary," she said, in the solemn tones that "meant things," "didn't mamma say you would have to tell God?"

"Oh, that's all right, mamma," the child smiled back. "I began it, but 'most first thing he said, 'Don't mention it, Mary; I know lots worse little girls than you.'—Harper's Bazar.

### Over the 'Phone

Mr. Miggles was trying to call up a friend who lived in a suburban town. Mr. Miggles looked up the number, then got central.

"Hello!" he said. "Give me Elmdale two-ought-four-seven."

"Elmdale? I'll give you the long distance."

Long distance asked, "What is it?"

"Elmdale two-ought-four-seven."

"Elmdale two-ought-four-seven?"

"Yes."

"What is your number?"

"I just told you. Elmdale two-ought—"

"I mean your own house number."

"Sixty-five Blicken Street."

"Oh, that isn't what I mean. Your 'phone number."

"Why didn't you say so?" asked Mr. Miggles, who is very quick tempered.

"I did. What is it?"

"Violet Park eight-seven-seven."

"Violet Park eight-double-seven?"

"I reckon so."

"And what number do you want?"

"Elmdale two-ought-four-seven."

"What is your name?"

"My name is John Henry Miggles. I live at 65 Blicken Street, Violet Park; my house 'phone is Violet Park eight-seven-seven, or eight-double-seven, as you choose; I am married, have no children; we keep a dog, and a cat, and a perpetual palm, and a Boston fern, and—"

"All that is unnecessary, sir. We merely—"

"and last summer we didn't have a bit of luck with our roses; I tried to have a little garden, too, but the neighbors' chickens got away with that; the house is green, with red gables; there is a cement walk from the street; I am forty years old; my wife is younger, and looks it; we have a piano; keep a cook and an upstairs girl; had the front bedroom papered last week and I want to—"



—Minneapolis Journal

### SURE, JUST THE PLACE FOR TAFT

The Other Fellows—"Go on, Taft, and take it. Just the place for you—so becoming. You'd look fine on the bench—sure, go on!"

"Did you want Elmdale two-ought-four-seven?"

"Yes!" gasped Mr. Miggles.

"Well, the circuit is busy now. Please call again."

But Mr. Miggles wrote a letter.—New Orleans Picayune.

### He Has a Difficulty

I like the comfortable life—  
Above all things to take my ease;  
But then, you see, I have a wife  
Whom it is my desire to please,  
And pleasing her, I grieve to say,  
My hopes of sweet content take wing.  
I sacrifice them every day  
Because it isn't quite the thing.

I like to elevate my feet  
Upon a table or a chair;  
In times of quite excessive heat  
A coat I always hate to wear.  
Some pie crust really needs a knife,  
And to old habit still I cling.  
That doesn't go with my dear wife  
Because it isn't quite the thing.

I may not breakfast till I dress,  
My pipe indoors I may not smoke—  
To which, however, I confess,  
She hasn't got me wholly broke.  
Whatever I may do, I find  
Some rule of etiquette she'll spring,  
And language can't relieve my mind  
Because it isn't quite the thing.

—Chicago News.



St. Louis Post-Dispatch

BEING ON THE FIRING LINE OF A SANTO DOMINGO REVOLUTION IS ALMOST AS FUNNY AS SEEING A COMIC OPERA



## Cause for Alarm

"The late Doctor Boardman, of Philadelphia," says the Philadelphia "Public Ledger," "used to relate this on himself: 'I preached a funeral sermon at one time, and spoke on the resurrection. I am sure I spoke longer than was my custom.'"

"The undertaker was a man of nervous temperament, and as the afternoon was going he began to be anxious to be on the way to the cemetery. He finally whispered to one of my members: 'Does your minister always preach as long as that at a funeral?'"

"Well," said the brother, "that is a good sermon."

"Yes," said the undertaker, "the sermon is all right, and I believe in the resurrection, but I am afraid if he does not stop pretty soon I will not get this man buried in time.""

## Just Like His Father

At a recent dinner of the Grant family Maj.-Gen. Frederick D. Grant told this story on himself: "I was booked to speak at a large dinner in town, and the toastmaster felt it incumbent upon him to make my path as smooth as possible. He therefore spoke of my father and said that I strongly resembled him. This had the desired effect on the people present, and they



A RULE THAT WORKS ONLY ONE WAY

gave me their best attention. Although I spoke as well as I could, I felt that everyone was disappointed in me, and I sat down with relief that it was over. The toastmaster rose and smiled at me. Then he said to the guests: 'Didn't I tell you he was just like his father? He can't speak worth a cent.'"

## Frivolous Definitions

Reputation—What the world thinks about us; character is what our wives know about us.

Dimple—The perfection of a blemish.

A Contented Woman—One living in the present, for the future and without a past.

The Ideal Woman—One who can keep house, her temper and a servant.

Rouge—Face suicide.

The Egotist—A man so satisfied with his appearance that he never looks into a mirror.

Trousseau—The clothes a girl wears for the first three years after marriage.—Harry A. Thompson in Saturday Evening Post.

## How She Settled

A young lady started her own banking account, and was very proud of her check-book. She used it so well that one day there came a notification that she had overdrawn her account. When she had found out what this meant she was full of sorrow for the bank. She wrote a pretty letter of apology and filled up a check for the amount due. "This," she wrote, "will certainly put matters all right."—London Standard.

## Serious Mistake

The man who has been taken from the wreck of the automobile and carried to the hospital is asked what his name is.

"Spuddsgot," he whispers.

"Spuddsgot," whisper the surgeons one to another. "This must be the multimillionaire. We must operate on him."

Rushing the patient to the operating room, they remove his appendix and are cleaning their instruments, when one of their number, who has bethought himself to notify the family by telephone, rushes into the room and shouts:

"This is a terrible mistake! We have made a wrong diagnosis."

"Impossible!" cry the others.

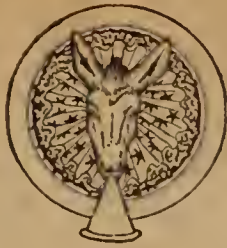
"But we have. It is the man's brother who is the multimillionaire."

Chagrined, the surgeons attempt to palliate the patient by offering him his appendix neatly preserved in a cut-glass jar of alcohol.—Chicago Tribune.

## Answered

The Washington correspondent hastily called up the cabinet officer by telephone.

"Pardon me for disturbing you, Mr. Blank," he said, "but will you please tell



## Wit and Humor



me whether or not the rumor that is in circulation as to your retirement is true?"

"Yes, sir," answered the cabinet officer. "It is. I was about to retire when you called me. Good-night."—Chicago Tribune.

When Dr. John Dewey, now head of the Department of Psychology at Columbia, was professor at Chicago, he had a good deal to say about the training of children. He particularly urged that they should call their parents by their first names. About this time he went home one day to find water trickling through the ceiling of his study, and, on investigation, found his son converting the bathroom into a natatorium. Expressing his surprise mildly, he was greeted with: "Don't stand there shooting off your mouth, John; get a mop and get busy before the old woman comes home."—The Argonaut.

## Discriminating Host

A discriminating preacher stopped at a farmhouse and asked for a meal. The farmer understood that the visitor was a Methodist preacher and called to his son to go and kill a chicken. A moment later the farmer found that the visitor was a Baptist preacher, and he called to his son: "Don't kill a chicken; kill a duck."

## Undecided About It

A country doctor, who was attending a laird, had instructed the butler in the art of taking his master's temperature with a thermometer. On repairing to the house one morning he was met by the butler, to whom he said:

"Well, John, I hope the laird's temperature is not any higher to-day?"

The man looked puzzled for a moment and then replied:

"Weel, I was just wonderin' about that myself. Ye see he deed at twal o'clock."

## Still First in all Hearts

Teachers and pupils of a high school in New Jersey were amazed one morning lately, when the principal suddenly ordered all the classes to assemble in the auditorium. Their amazement increased when he began to address them on "George Washington, the Father of Our Country."

When the principal finished his remarks he paused impressively for a moment, and then went on in his severest tone:

"The bust of George Washington which stood upon the pedestal in the reception room has been removed and placed upon the floor, with its face in the corner. Until the culprit, whoever he or she may be, comes to the front and makes a public con-

fession of the misdemeanor, not a soul will be permitted to leave this building. Remember—there will be no other punishment imposed than the open and public confession."

There was a great sensation. Teachers exchanged glances, pupils fidgeted around, awed and frightened. The principal, holding himself very erect, faced them solemnly.

"I am waiting," said he.

Then the janitor stepped forward and relieved the situation.

"It's up to me, sir," he said. "The roof was leakin' mighty bad, an' th' boost of Mr. Washin'ton were in the drip, an' I t'ought it proper to move it to keep th' rain from spilin' it, an' I meant no insult by turnin' his face to the wall, sir."

"The school is dismissed," said the principal.—New York Press.

## Query

Representative John Sharp Williams tells of the difficulties encountered by a darky preacher in Mississippi in endeavoring to "snatch a brand from the burning" in the shape of one Mose Baker, who steadfastly refused to attend divine service.

The preacher's arguments were met by a discouraging silence on the part of Mose. Finally the latter condescended to speak to the extent of asking a question. "Wot are we all heah for?" he growled, morosely.

"We is heah to help odders, Moses," responded the old clergyman, a kindly smile illuminating his dusky features.

"Ef dat's so," added Moses, with a maliciously triumphant grin, "wot is de odders heah for?"—Harper's Weekly.

## Circumstantial Evidence

Jack was making a visit to his grandparents, who owned a large dairy. He had been forbidden to touch the tempting-looking pans of rich cream. One day his grandmother caught him coming up from the cellar with a very suspicious white rim over his upper lip.

"Jack," she said severely, "I am afraid you have been disturbing my pans of cream."

"No, I haven't, grandma, I just ran my tongue gently over the top."—Lippincott's Magazine.

## From Missouri

The following graceful acknowledgment and news item combined appeared recently in the columns of a Missouri contemporary:

"Mrs. Henry Woggs, who is a pleasant

and estimable lady, and who can bake the finest cake ever made, having sent us some and therefore making us a judge, and who has a family of nice, clean, polite children, and who plays the piano beautifully and gives lessons on the same to a few fortunate pupils in our little city, had a tooth pulled Friday."

A man addicted to walking in his sleep went to bed all right one night, but when he woke he found himself on the street in the grasp of a policeman. "Hold on!" he cried, "you mustn't arrest me. I'm a somnambulist!" To which the policeman replied, "I don't care what your religion is—yc can't walk the streets in yer night-shirt."—The Scottish American.

## According to Signs

An Irishman was walking along a road beside a golf links when he was suddenly struck between the shoulders by a golf ball. The force of the blow almost knocked him down. When he recovered he observed a golfer running toward him.

"Are you hurt?" asked the player. "Why didn't you get out of the way?"

"An' why should I get out of the way?"



HOW REFORM STRIKES THE JERSEYS

asked Pat. "I didn't know there were any assassins round here."

"But I called 'fore,'" said the player, "and when I say 'fore,' that is a sign for you to get out of the way."

"Oh, it is, is it?" said Pat. "Well, thin, whin I say 'foive,' it is a sign that you are going to get hit on the nose. 'Foive.'"—New York World.

## Pity the Poor Woman

"Good gracious! John," exclaimed Mrs. Slangey, "you surely haven't brought anyone home to dinner!"

"Sure!" replied Slangey. "Haven't you got any grub for them?"

"Why, no. You told me this morning you'd bring home a couple of lobsters for dinner and—"

"Well, that's them in the parlor."—Philadelphia Press.

## Ready to Exchange

A man in Texas is anxious to exchange his home and property down there for a residence in New York State. We are his man, and he can have ours whenever he can arrange matters.—Star of Hope (published in Sing Sing).

## The Winning Card

"What are trumps in the game of life?"

I asked of all in the busy strife.

"Hearts," said the maiden, shy and sweet, With happy eyes and blushes fleet.

The society belle smiled scornfully:

"Hearts for you, but diamonds for me."

"Clubs," drawled the blasé man of the world,

Drifting down stream with his sails all furled.

The grave-digger laughed as he plied his trade.

"Spades are the final trumps," he said.

—Baltimore American.

## At the Bar

Tired Thompson—"Wuz yez ever before a judge?"

Frozen Stiff—"I wuz."

Tired Thompson—"What did ye get?"

Frozen Stiff—"Life at hard labor. I wuz married by a judge."

## Quite Proficient

Sammy broke suddenly into the parlor one day, and came upon his Aunt Margaret sitting on Mr. Brown's knee.

The surprised couple hastened to pull wool over the youngster's eyes.

"We are rehearsing for a little play, Sammy," explained Aunt Margaret.

"Yes, Samuel," added Mr. Brown, with a touch of sentiment in his voice; "I am now holding the queen."

"You must be good at it," answered Sammy, as he backed out of the room; "I heard Uncle Jack say that you held four queens last night."—Lippincott's Magazine.



New York World

STUNG



## Notice to Inquirers

**B**EFORE sending a legal inquiry, subscribers are requested to please read carefully the notice standing at the head of this department.

## Inheritance in Indiana

E. S., Ohio, writes: "If a man dies leaving no children, and no will, can his wife hold all the property, it having all come from his side? If there is a will, can his sisters and brothers break it?"

By the laws of Indiana the wife gets one third of the husband's property. Whether or not his brothers and sisters could break his will would depend entirely upon the question whether or not at the time he made the will he was competent so to do.

## Right of Postmaster to Charge Rent for Boxes

T. W., Ohio, wants to know whether a postmaster can collect rent for the boxes in which the mail is deposited in the office. My understanding is that the postmasters have such right.

## Limitation of Law as to Land Patent

B. F. S., Tennessee, inquires: "Does the limitation law of Texas cut heirs out of land patented to heirs in 1859 and 1861?"

The query is not very definite, but my opinion is that too long a time has elapsed for the heirs to recover the land.

## Deed with One Witness, etc.

A. S., Pennsylvania, inquires: "Does a warranty deed require more than one witness to its delivery to make it valid?"

As I understand the law of Pennsylvania, a deed is valid with one witness. If it is properly acknowledged before an officer designated by law, the deed, I think, would be valid.

## Kind of Fence Required on Line

M. A. K., Ohio, wants to know the law on line fences in Ohio.

No one is required to build a fence other than that which is sufficient to turn stock in its usual and general condition. If breachy, he cannot be expected to fence against it. If such stock trespasses or breaks down a fence, the owner would be liable.

## Right of Telegraph or Telephone Companies to Erect Poles

R. M., Ohio, asks: "Has a telegraph or telephone company the right to go through a private farm, or put up poles wherever they have a mind to along the roadside, without permission from the property owner?"

No, neither telegraph or telephone company has such a right.

## Deed by Minor

W. B. J., Virginia, asks: "A husband and wife give their signature to a deed. The wife to whom the land belongs is only twenty and a half years of age. Is the deed good?"

I am not sure at what age a woman in Virginia ceases to be a minor. I presume it is twenty-one years, and if that be true, the deed might be voided by the wife within a reasonable time after she arrives at the age of majority.

## Rejected Purchase, etc.

J. L., New Jersey, says: "I purchased in October last from a firm in Chicago a bill of goods, among which was a gun costing \$14.80. This gun proved to be not as represented. They were notified, and by their directions the gun was returned to them by express. They acknowledged the receipt of it, and promised to give the matter prompt attention. Since then, and although I have written four letters on the subject, they have not returned the money, nor have they taken a particle of notice of my letters. There appears to be no other method to get the money back except to sue them. Living in New Jersey, how can I bring a suit in Illinois?"

Of course, the only remedy you have is to sue the firm, and this you cannot do in your state, unless you discover some property there belonging to the firm, otherwise you would need to bring your suit at the residence of the firm, which for the amount involved might after all not be very profitable. You might send your claim to some lawyer in Chicago and ask him to collect it.

## Land Sold for Taxes

R. L. T., North Carolina, asks: "A lady married thirty-nine years ago. Her father gave her a tract of land in Arkansas, and the lady and her husband lived on the land six years. The lady died and her husband came to North Carolina and brought their three children. The lady's husband died a few years after, and the land was sold for taxes. Can the children redeem

## The Family Lawyer

By JUDGE W. M. ROCKEL

Legal inquiries, of general interest only, from our regular subscribers will be answered in this department, each in its turn. On account of the large number of questions received, delay in giving printed answers is unavoidable. Querists desiring an immediate answer, or an answer to a question not of general interest, should remit \$1.00, addressed to "Law Department," this office, and get the answer by mail.

the land? How would they have to proceed?"

There may be facts not disclosed in your query which would determine the answer, but I would be of the opinion that too long a time has elapsed for a successful redemption of the land to be had. The better way would be to address some attorney in the place where the land is located and get his opinion.

## Barred Debt—Absence from State

S. D. H., Virginia, inquires: "A man who contracted a debt in the state of North Carolina, and moved to another state without making any more payments, wants to know how long will he have to remain away before the said debt is canceled in the estimation of the law?"

The statutes of North Carolina provide that if a man leaves the state for a year or more that the statute will not run in his favor during the time he absents himself from the state.

## Valid Will Without Naming Heirs, etc.

G. C. M., New Hampshire, asks: "In New Hampshire a man made his will, leaving everything to his fourth wife, but mentioning other wives and children by saying, 'To Mrs. ———, from whom I have received a divorce, it is my will that she shall not receive anything. To Mrs. ———, ditto. To my children (giving names), nothing.' Can either one of those heirs contest the will successfully, or would it be necessary to leave a certain sum to each to make it clear?"

The above will would be plain enough to indicate that the testator desired the designated persons to have no portion of his estate, and would be valid to that effect.

## Division of Line Fence Where Parties Sold Land in Different Tracts

A. S., Ohio, says: "A. and B. join farms. They divided the line fence. A. built the south half and B. the north half. A. sold to C. a strip along the south where the fence was built by A. B. then sold to D. Can C. compel D. to build half of the fence? C. has kept the fence in repairs for twelve years. D. refuses to build, and also says he will prosecute C. if he removes anything from the fence. Most of the fence that remains was put there by C."

When the line fence is once set apart to the landowner, that fence is his. If anything should come up that would require a new division of the line fence, my judgment would be that the man who owned the fence could remove the same.

## A Renter's Troubles

T. M., Ohio, says: "I rented a portion of A.'s farm for two crops, cash rent for each crop. I raised the corn crop and paid the rent. I sowed it in rye, the rye came up nicely and looked well. A. at this time rented the other portion of the farm with the house on it to C. for one year. A. moved off and C. moved on with one hundred head of chickens and turned them loose. The rye is near the house and the chickens are keeping quite a portion of it nipped back, so much so, if continued, it cannot make a crop. What is best for me to do?"

I am afraid that I cannot exactly tell you how you are going to protect your crop, except to come onto the owner of the chickens for damages, and I fear that that would make more trouble than the amount of money you would receive would be worth.

## Locating a Homestead by Son of Soldier

C. D., Ohio, asks: "My father, who was a soldier in the war of '64, and, by a certain act of Congress, is entitled to one hundred and sixty acres of government land. Can I get the land, or has he to put in a personal claim?"

As I understand the law, the soldier himself must either personally or by agent make the application, etc., but for more definite information you had better write to the Commissioner of the Land Office at Washington, D. C.

## Cleaning Out Old Ditch

C. D. B., Ohio, asks if there is any way he can compel his neighbor to open up the old watercourse or ditch. The water backs up on his place and does him damage. He

is living in one township and his neighbor in the opposite township.

The only way is for you to commence proceedings either with the township trustees of the different townships or the county commissioners, and have this ditch established as a public ditch. The mere fact that it has been there for some time does not make it a public ditch, and neither the commissioners or trustees would have any right to order it cleaned.

## Payment of Taxes, etc.

F. E. C., Ohio, asks: "I sold my farm about the middle of December, 1905, and gave possession in January, 1906. The December taxes were not paid. The day the deed was made I wanted to pay the taxes, but the man who bought the place said that if I would give him the road receipts he would pay the taxes. I was busy and did not give him the road receipts. Now he wants me to pay the taxes, and says that I will have them to pay."

The answer to your query would depend upon whether or not it was agreed between you people that if you delivered the road receipts that the purchaser would pay the taxes. If that was the agreement of course you would not be compelled to pay the taxes; otherwise you will.

## Widow's Share of Property

J. W. M., Ohio, wants to know: "If a man dies intestate leaving a wife without children, what share would the wife get of the real and personal property, there being one third of the farm not paid for, and not enough personal property to pay off the debts?"

In Ohio the widow gets, if the real estate came by purchase, all of it; if it came by inheritance, a life estate in all, and she would get all of the personal property. Of course in such cases she would be required to pay the debt. If there are not enough assets to pay the debts, the administrator would sell the estate, pay the debts and turn the remainder over to her as her interest might appear.

## Inheritance

C. E. L., Massachusetts, inquires: "If a man dies and leaves a wife and one child of age, who gets his property? If a woman dies and leaves husband and one child of age, who gets her property? If a man dies and leaves a wife, mother, brothers and sisters, but no children, who gets his property?"

The wife would have a dower in one third of the real estate and would have one third of the personal property absolute, the rest of the property going to the child. The same law applies to a man as to a woman in the state of Massachusetts. The laws at my command do not definitely answer this question, but of course the wife would have no less rights than if the child was living. The law seems to use the words "no kindred," and I do not understand whether that means children or whether it means brothers and sisters, etc., but it says that if there are no issue, then the surviving husband or wife has five hundred dollars and one half of the personal property and one half of the remaining real property, or the whole, if there are no kindred. It would seem, therefore, that the brothers and sisters and mother would be kindred, and that she or he would get as above indicated.

## Boundary Line Fence

J. H. H., Ohio, asks: "A. and B. live on adjoining farms. The creek crosses the line five times. The fence runs all on one side of the creek, cutting B. off so that he had to build chutes to get to the water. B. proposed to A. to change the fence to the line so B. could have the benefit of the water. A. was willing to straighten the fence to the line. Now in the change that took place at that time, fourteen years ago, B.'s fence was put over on A.'s land, taking about one and one half acres of A.'s land. This was caused by an error in the change of fences, and this error can be plainly shown, as A.'s deed specifies in rods just where the line should run, and A.'s deed is the oldest. Now B. expects to hold A.'s land, as he claims this change was an agreement between A. and B. as to the line. Now A. has only circumstantial evidence, such as the old line fence

being nearly all on B.'s land, giving A. the advantage in the land and all of the creek."

It seems to me that the line has not become so definitely established in this case, but that any of the parties interested may have it established on a true line, if there are no questions about the true line. Better submit the matter to the township trustees to make a new division.

## Conveyance of Property to a Person and His Heirs

A. S., Ohio, inquires: "If real estate is deeded to a woman and her heirs (husband living), can the woman sell the property and give a good title, having minor children?"

The word heirs as used in deed is meant to indicate that the highest title known to the law is conveyed to the party. The woman therefore might convey the property free from the rights of her children. The husband, however, would have a dower interest in the property, and it will be necessary for him to sign a deed to clear the title.

## Inheritance—Cause of Divorce

C. W. L., New Jersey, wants to know: "A single woman having real estate marries a man having several children. They have none. At his death what share of his property does she hold, he having real and personal property? If she dies first, what share of her property does he inherit? On what grounds can a woman procure a divorce in the state of Pennsylvania? and also, how long a time do they have to be a resident there?"

At the husband's death the wife would have a life estate in one third of the real estate during her lifetime, and also one third of the personal property. If she dies, he would get all of her personal property, but I am not sure about his interest in her real estate. To acquire a divorce in Pennsylvania, a person is required to be a citizen of, or a resident in the state, one year prior to the application. The grounds may be adultery, wilful desertion for two years, cruel treatment, fraudulent marriage or imprisonment.

## Sale by Administrator of Real Estate to Pay Debts

S. P., Ohio, inquires: "A died, leaving a wife and no children. There being no will, the widow was appointed administrator. She had the personal property and real estate appraised. The personal property was insufficient to pay her allowance. She had the real estate sold. It was bought by her father and deeded to her. Had she a right to sell the lands, and what interest does she hold? The real estate was acquired before A.'s marriage, and he died solvent."

I see nothing irregular about the above matter, and I have no doubt that the administrator had a right under the orders of the court to sell the real estate. If the proceeding has been regular, A.'s brothers and sisters could not disturb the title.

## Ownership of Spring in Highway

C. R., Ohio, says: "C. owns land bounded on the west by a township public road. Near the ditch of said road, a spring of water puts out. Does C. or do the township road commissioners own the spring, and who has the right to use and control the water? What will be the penalty if the commissioners pipe the water away one hundred and fifty feet for a public watering place without C.'s consent, and after receiving a written notice to abandon the piping?"

I do not believe that the road commissioners have any right to interfere with the use of this spring, other than is required for the benefit of the road. The spring belongs to the landowner, subject to this right of the road commissioners.

## Title to Alley Vacated

S. M. W., Georgia, writes: "I owned one square of lots in Indiana. There is an alley vacated by the county commissioners which goes to the lots on each side. I then sold the lots by warranty deed. I did not deed the vacated alley. Do I still own the vacated alley, or who owns it?"

I do not believe that the courts have been in accord upon their holdings upon the proposition you state, and it might depend upon how the property was sold. If described by metes and bounds, it seems to me that the alley would belong to the owner, but if the land was sold according to a numbered lot on a certain plat, then it would seem to me that the alley would belong to the adjoining lot owners, each lot having the proper proportion adjoining it. If the lots are sold before the alley is vacated, then unquestionably the alley reverts to the lot owners.



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No. 721—Square-Yoke Nightgown

Cut for sizes 32, 34, 36 and 38 inches bust measure. 10 cents.



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Cut for sizes 24, 26, 28 and 30 inches waist measure. 10 cents.



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Cut for sizes 12, 14 and 16 years. 10 cents.

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Cut for sizes 12, 14 and 16 years. 10 cents.



No. 627—Plain Princess Wrapper

Cut for sizes 34, 36, 38, 40 and 42 inches bust measure. 10 cents.



No. 700—Closed Drawers with Yoke

Cut for sizes 22, 24 and 26 inches waist measure. 10 cents.



No. 704—Short Petticoat, with or without Yoke

Cut for sizes 24, 26, 28 and 30 inches waist measure. 10 cents.



No. 2016—Golf or Sun Bonnets

Cut for sizes Small, Medium and Large. 10 cents.



No. 726—Shirt Waist with Yoke

Cut for sizes 32, 34, 36 and 38 inches bust measure. 10 cents.



No. 706—Corset Cover, with or without Fitted Skirt Portion

Cut for sizes 32, 34, 36, 38 and 40 inches bust measure. 10 cents.



No. 727—Box-Plaited Coat

Cut for sizes 4, 6, 8 and 10 years. 10 cents.



No. 2018—Closed Drawers

Cut for sizes 22 to 30 inches waist measure. 10 cents.



No. 446—Kimono Sacque

Cut for sizes 32, 34, 36 and 38 inches bust measure. 10 cents.



No. 724—Waist with Adjustable Plastron

Cut for sizes 32, 34, 36 and 38 inches bust measure. 10 cents.

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Cut for sizes 22, 24, 26 and 28 inches waist measure. 10 cents.

Send all orders to The Crowell Publishing Company, Madison Square, New York City, care Pattern Department.



No. 480—Double-Breasted Shirt Waist

Cut for sizes 34, 36, 38 and 40 inches bust measure. 10 cents.



## Farm Selections

An apparently well-posted Georgia cotton grower asserts that cotton cannot be successfully grown where there are no frosts, or where there is what is known as a rainy season.

The farmer who has but a few acres and wishes one acre to support one cow, will find a plan for doing it in "Farmers' Bulletin" No. 242, recently published by the United States Department of Agriculture. It is entitled "An Example of Modern Farming."

Two tons of flax straw have recently been shipped from Manitoba to Canada to be tested in the making of binder twine and paper. The test is to be made in the research laboratories in Toronto. If successful, it will prove very valuable to the flax growers in the Northwest.

Forty-five wide-awake farmers in the vicinity of Sabetha, Kan., have an organization for handling all the grain they raise. It has been so successful that their books show that in 1905 they have saved not less than five thousand dollars. Such cooperation pays.

The German government has wisely consented to the continuance of the present tariff until June 30, 1907. In the meantime it is expected that a sensible reciprocal arrangement will be effected with the United States whereby a disastrous tariff war may be avoided.

Write your representatives and senators a courteous letter telling them what the people of the district want. They must follow the voice of the people, and it is necessary that they hear the voices of those in moderate circumstances as well as those whose wealth gives them opportunity.

The annual report of Prof. B. T. Galloway, Chief of the Bureau of Plant Industry, shows that the Agricultural Department expended \$129,893 to save the cotton crop from the ravages of the boll weevil. Why not expend an equal amount to eradicate the gipsy moth in the New England States?

It is an interesting fact that several young women are now taking the "corn and stock judging" course, at the Illinois College of Agriculture. This indicates that farmers' daughters are beginning to appreciate the necessity of fitting themselves thoroughly, and in a scientific manner for the business they expect to follow.

Statistics show that California has about ninety-one million bearing grapevines, New York about thirty million, and Ohio about fourteen million vines. About one half the grape crop in California is converted into wine, about one third into raisins, and about one seventh is shipped as fresh grapes.

### Catalogues Received

Simmons Hardware Co., St. Louis, Mo. Illustrated catalogue of "Laclede" bicycles.

Deere & Co., Moline, Ill. "Farmers' Pocket Companion," illustrating plows, cultivators, harrows, etc.

Flint & Walling Mfg. Co., Kendallville, Ind. Illustrated catalogue of "Star" windmills, towers, tanks and pumps.

Seneca Camera Mfg. Co., Rochester, N. Y. Illustrated catalogue of the "Seneca" cameras and accessories.

Edward Gillett, Southwick, Mass. Catalogue of hardy ferns and flowers, bog plants and native shrubs—wild flowers a specialty.

Studebaker Bros. Mfg. Co., South Bend, Ind. Descriptive circular of the "Studebaker Junior," a little wagon for the boys and girls.

American Steel & Wire Co., Chicago. "Grape Vine Diseases and a Remedy"—pamphlet giving the merits of the sulphate-of-iron treatment.

S. K. Hooper, Denver, Col. "The Fertile Lands of Colorado and Northern New Mexico," giving concise description of lands on the line of the Denver and Rio Grande Railroad.

### Books Noticed

The Henry Laurens Pamphlets, entitled, "The Concentration of Wealth," "The Trust Situation," and "The Public Highways." Price, 10 cents each; or \$1 for the three bound together in cloth. Published by Henry Laurens, New York City.



## Pigs At Weaning Time

Stand a chance of slow development for a time. Grain or sour milk is harder to digest than the milk of the dam. The digestive organs require special aid at this time. As the feeding period of the hog is short—and the shorter the better—it is expedient to strengthen and build strong every digestive organ while the pig is young. Dr. Hess Stock Food, the great hog tonic, makes pigs grow fast, healthy and strong; expels worms, aids digestion and assimilation and causes the maximum amount of the nutrition to be applied to bone and muscle building. Stockmen must remember that it is not the food consumed but the food digested that produces the profit. Increasing the digestive capacity of stock of all kinds, according to the recognized medical authorities, can be produced by the action of bitter tonics, iron and other medicines such as are contained in

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if you will mention this paper, state how much stock you have, also what stock food you have fed, and enclose two cents for reply. In every package of Dr. Hess Stock Food there is a little yellow card that entitles you to this free service at any time.

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A tablespoonful per day for the average hog. Less than a penny a day for horse, cow or steer. If your dealer cannot supply you, we will. Dr. Hess Stock Food free, if you will mention this paper, state how much stock you have and what kind of stock food you have used.

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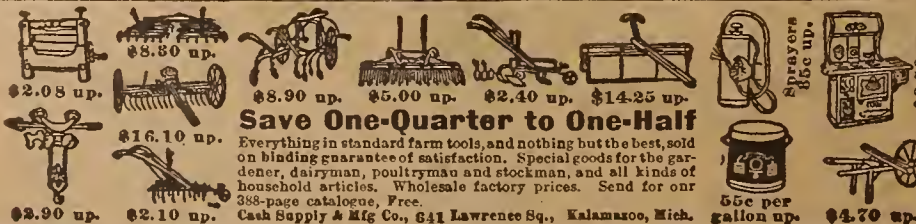
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# FARM FIRESIDE.



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ALL of the cotton fields of the world combined will not supply this year enough to meet even last year's consumption. The growing demand for this staple product, and the prices that such demand creates, has roused the South to an industrial activity unprecedented since ante-bellum days. The old-time shiftless system of agriculture that existed as the result of the ruins of slavery has given way to modern methods.

In the ante-bellum days the larger part of the cotton was grown by planters who owned immense areas of land, and an army of slaves to cultivate it. Cotton grown under such conditions was expensive, the slaves had to be clothed, fed, and looked after like so many children. The care of the plantation was usually left in the hands of "overseers," who were not always efficient or honest. The planter generally dealt with an agent who lived in New Orleans, Memphis, or some other large market town, who acted as his banker and broker, and who often had to advance supplies against his growing crop. These supplies were usually the poorest goods at the highest prices, and at a rate of discount that was out of all reason. In those days the price of cotton was, as a rule, very high, otherwise in many cases bankruptcy would have been the result. As it was many planters who were careful in their management naturally became very rich.

At the present time all this is changed; land that was worth twenty to thirty dollars an acre before the war is now worth from three to ten dollars. The few old-time planters, or their descendants who still retain possession of their former large estates, for the most part have them worked on shares, or have them divided into small farms which are rented to tenants, both white and colored, for a yearly rental of from two to five dollars an acre. These planters generally reserve a section of their land to cultivate themselves, and many of them are owners of supply stores, cotton gins and presses. It is this class of men that are most active in the movement of establishing cotton mills where cotton is grown.

The system of growing cotton on shares is an evil, but one that must be tolerated, for on no other plan could such immense crops have been raised during the past twenty-five years in an impoverished country. Labor is so uncertain that it is next to impossible to engage in extensive industrial operations. On the share system the landlord supplies not only the land, but very nearly everything his tenant may require, even to a mule, implements, seed and fertilizer. At first planters rented thirty-acre one-horse farms to the negroes. Merchants supplied rations of meal and pork, month by month during the spring and summer, waiting until autumn for payment. Both landlord and merchant were obliged to inspect each debtor-tenant's crop to prevent neglect, and for the risk and trouble charged two or three prices for the land or groceries.

## Cotton is King

BY WILLIAM S. BIRGE, M. D.

The average negro's unfitness for independent production made this system bad. With no working capital, with the most primitive implements and methods, and with no love of work, the negro tenant farmer has remained in debt from one year's end to another, and well-nigh hopeless.

During the war the South produced but one bale to every fifteen produced before the war. This stimulated cotton growing abroad. Yet in thirteen years the South regained its supremacy. In 1904 a widely speculative market brought the price of cotton up as high as 17 cents a pound—the highest price in fifty years; and again the desire to compete was waked abroad. Now the Southern planters are endeavoring to produce this year a crop of 12,000,000 bales. Cotton from India does not reach Europe. Egyptian cotton is used only for high-priced goods. Our Southern states produce the many quantities and qualities used throughout the world, and British, German and French efforts to raise cotton in Africa and the West Indies has had but indifferent success. We shall keep our preëminence for many years to come, if not forever.

Cotton has entered into the very life itself of the Southern people. Small trading has made cotton the equivalent

manufacture was in the Southern States. The number of spindles in use throughout the country increased from 15,550,000 in 1892 to 22,000,000 in 1903. The great part of the new construction was in the Southern States. And from \$13,789,810 in 1895 the exports went to \$16,837,396 in 1896, and at an astounding ratio of increase up to \$32,216,304 last year.

In north Georgia and South Carolina the poorer people in the country (the poorer whites) have not handled much money, and often in the days of "five-cent cotton" they were in debt year after year, but they lived a life of careless independence. Now they work in cotton mills—even the children. Wherever a mill is established the surrounding country is drawn on for labor. Negroes as a rule are not employed on the machines, but many small tenant-farmers succumb to the temptation of handling a stated sum of money each week (beggarly sums, often) and give up their homes to live in factory dwellings. Yet the mills offer the young men chances for advancement they might otherwise have never had, as machinists, foremen, and so on, foreigners in many places taking the places of natives on the farms.

The cotton mills throughout the South contain on an average five thousand

of these mills range from fifteen to sixty-five per cent, and are an index of their financial prosperity. The stocks are always above par, are not listed on any exchange, and are rarely for sale.

The merchant in the country region of the black belt is a peculiar institution; oftener than not he is a plantation owner, and fills the rôle of storekeeper, banker, landlord and contractor. His store contains a general stock of almost everything that his employee might need, groceries, hardware, clothing, wagons and plows, seeds and fertilizer, and what he has not in stock he can get for you. He supplies his tenant with everything he has, and often has to advance him food and clothing for the year, and perhaps seed and tools until his crop is raised and sold. The tenant gives a chattel mortgage on his mules and wagon in return for seed and rations. As soon as the green cotton leaves appear above the ground another mortgage is given on the "crops." Once a week he calls upon the merchant for his "rations," a family of five usually consume about thirty pounds of fat pork and two bushels of meal a month. Besides this, clothing and shoes must be furnished; and if the tenant or his family are sick an order is given on the doctor or druggist. The doctor on one of the large plantations has a sinecure. The plantation owner or overseer settles all the bills against his tenant or employee, deducting two per cent for his services.

In the black belt cotton is money, and the landlord will take a mortgage on no other crop. The rent is paid in cotton and the debts are paid in cotton. This is one reason that there is no diversity in crops.

Oftentimes the tenant will not raise enough hay to feed his own mules or garden truck to supply his own family, and the land, too, is easily cultivated and would produce anything and everything that might be needed either for stock or family consumption. It is a case of once in debt always in debt. Aside, in getting things on credit he buys much that he would do without if cash were paid for the same. Some storekeepers in dealing with credit customers charge exorbitant prices for everything. I saw this exemplified in the general store of a large plantation in Mississippi. A negro tenant came in and purchased a side of fat pork, weighing thirty pounds, and a two bushel bag of cornmeal. For the pork he paid eleven cents a pound when the same could be bought in town for six or seven cents; the cornmeal cost him \$1 a bushel when its actual value was only 65 cents. So here was a man paying \$5.30 for what was actually worth not over \$3.40 and what could have been raised for \$1.50 to \$1.75.

Thus it is the negro goes blundering along, contented with his lot, not caring how much he pays for a thing so long as he gets it. Labor is scarce, and the negro a necessity to the planter, a fact realized by both parties. So long as he is willing to

[CONCLUDED ON PAGE 5]



FIRST PLOWING OF COTTON

of currency, a bale being as good as its value in money everywhere. Warehouse storage receipts pass from hand to hand in payment of obligations as readily as greenbacks.

The negro problem has been and is a cotton problem, for the negroes still do the work of growing the crops. They have been specialists in the labor of the cotton field and they are now indispensable, for the establishment of Southern cotton manufacturing is throwing the work of raising the cotton more and more on the blacks.

The United States in 1903 had more than 1,500 cotton mills, consuming nearly half the crop, and about half of this

spindles and one hundred and sixty looms, and cost about \$140,000. The number of operatives in each mill is about one hundred and fifty. The stock of these companies is held by the community at large, the poor man owning perhaps only a single share, while his more prosperous neighbor may be the possessor of several.

These mills are all money-makers, starting with small capital, located right on the spot where the cotton is grown, thus saving all the charges of compressing, brokerage, freights, etc., on their cotton. The wages paid are lower than those in New England, owing to the comparative cheapness of living. The annual earnings



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## Comment

### The Grange Before Congress

Representing a million of farmers in the Granges throughout the country, the legislative committee of the National Grange urges congress to pass five special measures now before it. These are: For the regulation of railroad rates; national aid for good roads; the parcels-post; the retention of the tax of ten cents a pound on imitation butter; and free denaturalized alcohol for use in the arts.

These measures are not for the benefit of one class of farmers against another class, but broad measures in the interests of agriculture in general, and in the true interests of the great majority of the people of the country. And as such they meet with general approval and indorsement.

For an example of the broadness of these measures take the removal of the tax of \$2.08 a gallon on denaturalized alcohol, to be used only for industrial and mechanical purposes. It would provide a cheap fluid source of heat, light and power, wonderfully clean and convenient. By its competition free alcohol would put a curb on monopoly prices for coal, gas, kerosene and gasoline, and the effect would be felt in every household in the land. It would touch the light in every home and the power in every factory as well as the market for surplus products of the farm.

### Life Insurance

The legislature of New York has passed all the Armstrong bills, making a comprehensive code of life insurance laws that will reform the business of the insurance

companies in that state and safeguard the interests of their policy-holders everywhere.

This code is the crowning result of the famous insurance investigation, principally of the Equitable, the Mutual and the New York Life companies, which exposed much graft and revealed the true character of so many prominent men of former high reputation. But all over the country are life-insurance companies, big and little, under management as corrupt and extravagant as that of the worst of the "Big Three" of New York. They also need investigation and reformation, and will be attended to in due time.

The new life-insurance code of New York is a model for other states; but legislatures are proverbially slow and it may be many years before every state in the Union adopts it, or has insurance laws adequate for the protection of its citizens. In the meantime it is a case of "Let the buyer beware."

The investor in life insurance should not depend solely on statutes to safeguard him. He can, and should, protect himself by getting reliable information on the subject, and using a little good judgment in the selection of a company to insure in, and of the kind of a policy to take out. For guiding and guarding himself aright, let him do three things:

Choose a company with low death rate; that indicates great care in the selection of its risks.

Choose a company with low expense rate; that indicates honesty and economy in management.

Choose a company that does not issue deferred dividend policies; that indicates it does not write speculative insurance of any kind.

Three things combined—genuine life insurance, lowest expense rate, and lowest death rate—give the best investment for the protection of the home at lowest cost.

These directions do not cover the whole subject, by any manner of means, but do form a safe guide-board for investors.

### Nitrogen from the Air

As nitrogen is in some respects the most important of plant-food elements, and the most expensive one in commercial fertilizers, any new process of taking it from the atmosphere in a form available for plant feeding arouses deep interest and high hope. Every now and then some nitrogen-from-air process is duly exploited in the press. At the present time it is a cheap electrical process of collecting nitrogen from the air in the form of nitrate of lime, to be used in place of nitrate of soda, the known, natural deposits of which appear to be nearly exhausted.

This will be most fortunate if true. There will be a great and increasing use for the product. But, after all, is not nature's own plan of adding nitrogen from the air to the soil far superior to any artificial method of fixing atmospheric nitrogen and applying it to the soil in the form of a chemical fertilizer?

Nitrates, formed from the decay of vegetable and animal matter in the soil, are very soluble and are soon leached out unless appropriated by growing plants. Nature renews the supply by means of certain bacteria which live in the roots of leguminous plants and use nitrogen direct from the air, which plants are unable to do. Now nature, in growing leguminous plants, combines the building up of organic matter with the addition of nitrogen from the air, and thus also keeps up the supply of humus in the soil.

Humus is of the utmost importance in the economy of plant growth; it is just as necessary in the soil as the mineral elements of plant food. Not only does its decay furnish soluble nitrates and other ready foods for the growing plants, but it keeps the soil itself in proper physical condition for the movement of water and air necessary for their growth, and aids in making the mineral elements in the soil available for plant food.

It has been demonstrated that, in order to get good profits from the application of commercial fertilizers, they must, generally speaking, be used in some way in connection with organic matter. Yields diminish under hard, continuous cropping with chemical fertilizers alone, as the humus in the soil decreases. Not chemicals alone, nor clover alone, but chemicals and clover has proved best for maintain-

ing soil fertility. The bulk of organic matter which turns to humus in the soil is what gives stable manure an extra value for worn-out lands. Potassium and phosphorus give best returns on soils containing humus. So man is forced back to nature's methods, or he fails.

In brief, the best solution of the nitrogen problem is to follow nature's plan. Improve the soil conditions by thorough tillage, and by drainage and liming if necessary. Grow leguminous crops, with the aid of phosphorus and potassium if needed, and let nature take nitrogen from the air and store it up in the soil in organic form.

### A Modern Danger

In a sensational message to Congress last month President Roosevelt declares that the result of the trial of the "Beef Packers," in Chicago, was a "miscarriage of justice, and that Judge Humphrey's interpretation of the will of congress, as expressed in legislation, is such as to make that will absolutely abortive. Pointing out the danger in modern criminal jurisprudence, he says:

In offenses of this kind, it is at the best hard enough to execute justice upon offenders. Our system of criminal jurisprudence has descended to us from a period when the danger was lest the accused should not have his rights adequately preserved, and it is admirably framed to meet this danger. But at present, the danger is just the reverse; that is, the danger nowadays is, not that the innocent man will be convicted of crime, but that the guilty man will go scot-free.

This is especially the case where the crime is one of greed and cunning perpetrated by a man of wealth in the course of those business operations where the code of conduct is at variance, not merely with the code of humanity and morality, but with the code as established in the law of the land. It is much easier, but much less effective, to proceed against a corporation than to proceed against the individuals in that corporation which are themselves responsible for the wrong-doing.

The President has but forcibly expressed a common protest against the courts, or rather against the too common practices and powers of criminal lawyers in the courts. Thoroughly infected with the rampant commercialism of the times, they hesitate at no art, trick or subterfuge in order to win a case for a client of wealth.

It is the whole duty of a criminal lawyer to secure for his client an absolutely fair trial; nothing more, nothing less is his duty to his client and to his country. Whenever he steps over this line and aids the guilty to escape, he commits a moral crime against civilization.

For the sake of making a reputation that will draw practice and increase fees, the modern criminal lawyer has twisted the old maxim so that it reads, "It is better to help ninety-nine guilty men escape than to let one guilty man be punished."

*J. C. Barnett.*

### Alleged Destruction of Niagara Falls

A great cry has been raised over the commercial utilization of the famous cataract at Niagara Falls, and the threatened destruction of its scenic beauty. Verily, what fools these mortals be. When you see the great body of water as it rushes over the precipice onto the rocks below, and observe what little effect the abstraction of that small percentage which feeds the mammoth power turbines has on the whole show, you will begin to realize that these waters will continue to do business at the old stand for all the time that you and your children will care to have it do so. There is not a particle of danger that the scenic beauty of the falls will be destroyed by anything in the way of power development yet started, or to be started in the lifetime of the youngest of us. The majesty of the great cataract is beyond the reach of the commercial desecrator.

### Death-Dealing Microbes

"The common people," says "Harper's Weekly," "have ground for protest against the discovery by the scientists of any more death-breeding microbes. Just as soon as a new one is discovered and

labeled, Dr. Wiley comes forward with proof that we have it in our canned tomatoes." The universe is a mass of microbes. From the earliest times people have been swallowing them, some injurious, some harmless, some beneficial, at a wholesale rate. Some of us are still alive, and the world continues to move, and bring forth living creatures. If we keep ourselves in good physical condition by avoiding excesses and worry, use wholesome natural food in fairly well-balanced ration, take plenty of exercise and fresh air, we will not have to live in constant fear of the death-dealing microbes, and may eat properly canned tomatoes, or any other canned fruits and vegetables, without great risk.

### Chemical Foods for Man

Years ago, when I first began to dabble in the science of chemistry, and was taught that our steaks and roasts and meats of all kinds, were nothing more than a chemical compound of slightly varying proportions of oxygen, hydrogen, carbon and nitrogen, with traces of a few other elements—all of them being materials found in unlimited quantities in nature—I often dreamt of the time in the more or less remote future when it would not be necessary for us to kill animals to secure our food supplies of this character, and when we might be able to concoct our beefsteaks, roast meats, eggs, etc., in the chemist's laboratory. Recent researches and discoveries, by Dr. Emil Fischer, a noted German chemist, have brought us at least an important step nearer to the realization of this, my boyhood dream. Dr. Fischer has actually been able to produce a form of chemical albumen. Albumen is known as a most complicated substance of organic chemistry, one molecule consisting of hundreds and even thousands of atoms of carbon, nitrogen, hydrogen and oxygen, and supposed to be necessarily of organic origin, that is the product of vegetable or animal life. It will not do for us to claim it to be impossible, or even unlikely, that proteids produced artificially, by the chemist's skill, will ever become of practical use and importance in the nutrition of man. Fifty years ago or so we would have considered the feeding of plants by chemical fertilizers a practical impossibility, and few people, even as recently as twenty-five years ago, would have imagined that the time would ever come when we could practically ignore the existence of the vanilla, the violet, the rose, etc., with their delicate perfumes, or the indigo and all other natural color plants, simply because the chemical laboratory and the chemist's skill produce perfumes as delicate and far more cheaply, and colors as bright and gay as were ever produced by natural or organic processes.

And yet, I shall not, at least for a while, think of ceasing to look to my fowls for the eggs that I want for my breakfast, or for the chicken or capon for my dinner, or to the garden and fruit patch for other things that will serve for daily food.

*T. Greiner.*

### Drudgery Don't Pay

I know hundreds of farmers who are so keen after dollars and cents that they not only push their help twelve to sixteen hours a day, but themselves even longer. Such farming does not pay. If one has to drudge every hour of daylight to make a profit it is high time he changed his methods or quit. Farming pays very well for the capital invested if it is carried on intelligently, and it is not drudgery.

The man who is making a slave of himself is not farming right, and the sooner he changes his methods the better. If every farmer would try to improve his ways of doing his work in every way possible, and every farmer's wife would do the same, there would be a mighty change for the better all over this land, and that quickly. And the only way a man can improve is by working his brains—working a few hours less with his hands and thinking and planning a few hours more with his brains.

*Fred Grundy*



## About Rural Affairs

### Turkeys Profitable

FARM papers have frequently pointed to the high prices that in recent years have been ruling in our markets for turkeys, and reminded farmers that at such prices the turkey must be very profitable. The "Massachusetts Ploughman" says, in regard to the conditions for success: "The essentials of turkey raising are plenty of range, liberty, dry soils, green food, pure water, and cool, clean houses. If only a few are to be kept they may run with other fowls, be fed the same food, and receive the same care." The turkey is truly the bird of liberty. We can not expect to raise a flock successfully, and especially without friction with the neighbors, on a village lot, or on a farm of but a few acres. The larger farms, with meadows and woods, especially in a hilly country, are just the place for raising turkeys for profit, provided we can protect them from foxes, owls, hawks, etc. For the mature birds we can easily dispense with buildings. Perches in a protected situation, or under a shed at most, are sufficient. Notwithstanding the reputed susceptibility of the young birds to all sorts of ailments and diseases, I have found it just as easy to raise them as to raise chickens, that is after I had learned how to feed them properly. My chick cake, with an extra allowance of green stuff, especially chopped onion tops, has always seemed to solve the problem of successfully feeding turkey chicks. For a few years I have not had my hand in the turkey business. The bird is so interesting, however, and adds so much to the attractiveness of a country home, and promises so fair profits, that I have sent for a few settings of Mammoth Bronze and half-wild turkey eggs for a new start. Breeders have made improvements on almost all fowls by selection, but I doubt whether there is any domesticated turkey in existence that is much of an improvement on the original American wild stock in point of vigor and hardiness.

### Bacterial Diseases of Tomatoes, etc.

My friend and co-worker, Professor Massey, says editorially in "Practical Farmer" that the "editor of FARM AND FIRESIDE" (undoubtedly meaning your humble servant) who, in an earlier issue of this paper, told an inquirer that he could keep his tomato vines free from blight, had probably never seen a case of the genuine Southern blight, which is a bacterial disease affecting the entire plant from root to top, killing it all at once, and which is different from the Northern leaf blight, the attacks of which are external and may be kept off by spraying with Bordeaux mixture.

I have seen the bacterial disease only in very rare instances in the Northern states, and am very glad of the rarity of its occurrence here, for it is one of the diseases for which I know of no remedy. We have simply let the few affected plants die, and that was the end of it. In my reply to the North Carolina correspondent I had reference only to the leaf blight, which may be controlled, at least in a measure, by spraying. This reminds me, however, that not one of us, even among the editors and professors, is infallible. In the "Tribune Farmer," for instance, Professor Craig (I believe) stated in answer to an inquiry that the English (Broad or Horse) bean is tender, and should not be planted until all danger from frost is past, while in fact this interesting bean is as hardy as our common peas, or nearly so, and should be planted quite early, so as to give it the benefit of the cool season, and make pods if possible before the arrival of the hottest weather. And Editor-Professor Massey not long since stated that lima beans have no nitrifying root nodules, while I have found them on mine in goodly numbers. He is probably correct, however, in the assertion that we need not worry about the root nodules on this crop as long as we plant the limas on heavily manured soil, as good gardeners always do. I simply wanted to say that we are all liable to jump at conclusions, at times, and make our little mistakes.

### Killing Horseradish

An Iowa reader writes that he had tried the plan of "keeping everlastingly at it," tearing out the horseradish roots with the only result of making his original patch twice as large. Three years ago he spaded the entire patch as deeply as possible in the dark of the moon, in August, throwing out all the roots he could find, and he has never seen a horseradish plant on the ground since. I have accom-

plished the same result by late and deep plowing, planting potatoes and giving thorough cultivation. Of course, I did not pay any attention to the moon, as all my attention was directed toward doing good work in the earth. This is the main point. Another reader has managed to choke out the horseradish by covering the entire patch deeply with coarse barnyard manure. I believe that by "raising potatoes under straw," planting them quite late in the season, say along in June when the horseradish is already quite large, and covering the seed deeply with half-rotted straw, the horseradish could readily be choked out.

### Best All-Around Breed of Hens

An Illinois reader asks me which I consider the best all-around fowl for farm or family use. I have kept the Black Langshans for many years, and taken quite a fancy to them as a general purpose fowl, and if the birds were not black, with a white skin, which to many seems to be an objection, I would still claim superior excellence, in fact, first place for them. Recently I have become more intimately acquainted with the Orpingtons and the Rhode Island Reds. The Orpingtons seem to me fairly good birds, but not without faults, especially in the color of the skin. On the other hand, I am so taken up with the Rhode Island Reds, that if I were not averse to making a change, I would discard the Langshans in their favor. I have not yet discovered a single serious fault in this comparatively new breed. It is bound to become popular. Yet tastes differ.

### Best Food for Little Chicks

I am also asked to name the best food for baby chicks. Should it be a mixture; raw or cooked? It certainly should be a mixture—that is a variety. No one particular food can be best, although I have raised chicks with very good success on an almost exclusive diet of whole wheat, of course, gradually and within a week's time getting them used to it. For a first



WHAT PLEASES THE BOYS

feed I know of nothing much better than stale bread soaked in water or milk, and then squeezed nearly dry, with an addition of sharp clean sand or fine grit and bits of bone or meat. The chick cake, recipe for which has been repeatedly given in these columns, may be fed right along, and almost always with good results. It consists of one part each of cornmeal, sifted oatmeal, wheat bran, middlings and animal meal, or in its place fine cut meat and bone, beef scraps, fish, or whatever of such protein materials may be available, and this thoroughly mixed, made into a dough with milk, if sour with an addition of soda, and baked until well done. When feeding, crumble it up fine, or if too hard, just moisten it sufficiently so as to be readily crumbled. Sometimes I have this cake baked perfectly dry and hard, and when ready to feed it, I break it in pieces and run it through my bone cutter, or through any chopper that will break it in bits. Besides this, I feed some millet seed, and later on Kafir-corn and wheat.

With this system of feeding, I occasionally lose an originally sound chick by accident, but never (well, hardly ever) from disease.

*A. Greiner*

## Salient Farm Notes

### Something New About Farm Help

Last fall I received a letter from a farmer who said he had learned something new and he wanted to tell me about it. After reading the letter I decided that he really had learned something new, and that quite a number of others might be benefited by the lesson. I will give parts of his letter.

"Probably you remember that I wrote you a couple of years ago about hired girls. I then told you that I could hire men and get along with them all right, and that they would do their work well as a general thing, but that I always have had a time to get girls to work for us through the season. In fact I gave it up as a bad job, and helped wife as much as I could myself, and to tell the truth that was very little. Last spring I rode the country over seeking a girl and failed to find one. I found two or three dozen that wanted to teach school, and about a hundred that wanted to marry, but not one that wanted to work.

"Just then one of my men got a letter, from a cousin of his who is working his way through college, asking if he knew anybody that was wanting a man to work in the house, to do housework. He said he had done lots of it, was a fairly good cook, and knew just how to take hold and do things up right. He wanted twenty dollars a month, board and washing, and his railroad fare, which would be about three dollars each way. He said he would begin work at five in the morning, work till two P. M., then have two hours for study, then work till seven, when he would quit for the day.

"Wife and I talked it over and I had

time than we did waiting on the hired girl and taking her to town about twice a week. That fellow came down in the morning at five with a white blouse, a big white apron and a nobby little white cap on, and in half an hour the bell was ringing for breakfast. Everything was prime. He not only knew how to cook right, but he knew how to set a table, and make things look dandy. Dinner was all ready when we got in at noon, and I felt like I was at a first-class hotel. A few minutes after seven at night everything was cleared away, the kindling was right by the stove and everything for whooping the breakfast on the table in the shortest time was fixed. Wife said she had learned more about keeping house that day than in all her life before.

"He was very quiet about his work, but he could do more in an hour than the average girl could in half a day and it was done right. He learned what and how to do in the college kitchen and in the domestic science department. He could make fine bread, and cook other stuff exactly right, and he knew how to do a washing and ironing to a grand turn, and as he was a husky young fellow he did the whole business in half the time usually required at our house. His rule on Sunday was breakfast at six, dinner at twelve prompt, and supper at five. All the supper except the coffee was cold, but it was mighty good, just the same, and served in neat style. All in all, I thought the boy did exceedingly well and earned his money. Things in the house never ran so smoothly before. He attended strictly to business, wanted no days off to go visiting or to see his ma. Besides all that he taught us some things that we never would have learned. We have made no changes in the hours since he left, and I am sure we get more work done, and the chores are attended to better, and feeding and watering of stock done right."

I have read the above letter over several times, and have thought of several young fellows I know who do not want to work on the farm, but who would make first-class house-help. But would they take such a job? No, thank you! They don't like farmwork, and the idea of qualifying themselves to do housework would give them a nervous shock. Barbering, tape measuring, dealing out soft drinks—all these are high-toned vocations. Housework is for girls, who do not like it any better than the boys, and never do one stroke more than is necessary to enable them to claim the wages, and never improve in their methods.

The haphazard way of doing things, the lack of method, the unnecessary trotting hither and thither for things that should be within reach, the clinging to old customs brought down from grandma's days. I know women who are doing their housework exactly as they did it twenty years ago. In a very few minor particulars they have improved, but in the main they are in the same tracks they started in. One farmer's wife told me that there was "plenty of chances for improvement in farmwork, but very few or none for improvement in housework." In five minutes time I suggested not less than a dozen, which she finally admitted would prove helpful if adopted.

Farmers are complaining about the difficulty of obtaining help on the farm and in the farmhouse. I think they are largely to blame for this. The "daylight-to-dark" hours of work on the farm drives the men who are worth having to the cities, where the eight-hour rule prevails. I used to be a hired man on the farm, and nearly every man I worked for expected me to rise at four, and to dig away at the different tasks until about eight. Nearly sixteen hours a day in summer and twelve in winter. And the hired girl was at her work very often an hour later. We were worked to the limit of endurance, and treated much like machines. There was no necessity for such slaving. Nor is there any now. It gave the farm a bad reputation among workers which sticks to this day, even where the system has changed for shorter hours, better board, and better treatment. I feel satisfied that there would be little difficulty in securing good help and plenty of it, both on the farm and in the house, if conditions were so changed that the better classes of workers would be attracted. As it is now the farmer is obliged to take help that is not at all desirable, generally help that is not wanted elsewhere. Such help shirks, is careless and bungling. Farmers have driven their help to the cities by their methods of carrying on their operations.

"I really liked the young fellow's breezy style, and some of his new ideas sounded sensible, but I did not think them practical, but I told him he could begin. Wife and I thought we would really lose less

*Fred Grundy*



### A Serviceable Fence

FOR passing over ledges or wet places, or as a portable fence, I find one built on the following plan the most serviceable:

Tools required, an ax, a pair of wire cutters and pliers, and a coil of medium-sized plain wire; material, poles or rails of any equal length; stakes six or seven feet long.

Make an X of the stakes by placing two together and passing a wire loop, not drawn tight, around both about two feet from the end. Picking these up, spreading the longer ends apart four or five feet, and they will be bound very tight.

Lay a pole or rail above the cross and raise another below it. Pass a wire around and draw as tight as possible. A third rail may be placed below by hanging it at any convenient height by means of wire. Should a fourth rail be desired, wire it to the stake above the cross on the side farthest from the lot in which are cattle.

This fence will not blow over, is not easily pushed over, and can easily be moved in sections to any part of the farm.

By nailing to the legs a piece of oak or other wood not easily decayed by water it makes a fence for boggy places.

Vermont. E. R. PERCIVAL.

### Currants

Some years ago I had some currant bushes that were infested with the currant worm, and the currants were very small.

With the hope of improving the quality of this fruit I wheeled, in February, the litter from the horse stable and spread it between the bushes and about two feet each side of them, working it up close around the bushes to a depth of about eighteen inches, or so no grass or weeds would come up through it. The result was that we had a fine crop of very large fruit which the neighbors called cherry currants, and no worms appeared. I tried this for several years with equal success. I omitted mulching one season, thinking the worms more than likely had all been killed, but to my surprise they were evident in large numbers at the usual season. I bedded the horse stable liberally with straw, all of which was used.

Ohio. A. W. STILES.

### Raising Peanuts

A writer in your paper says plant peanuts in rows three feet apart, placing a pod every foot in the row. I say burst the pod, take out the pea and plant two in a place eighteen inches apart. If planted in the pod they will rot and never sprout.

Arkansas. J. P. HOOPER.

### Raising Cabbage

Last spring I selected about an eighth of an acre of good soil for raising cabbage. I plowed and harrowed the land until it was very mellow, and then manured it lightly. I marked it with a corn-marker, so that I could cultivate it with a horse cultivator.

I set out the plants, putting a little water and a small quantity of hen manure in each hill, mixing it thoroughly with the dirt. I then put some burdock leaves over the plants to prevent the sun from withering them. After a few days I took the leaves off.

When they had grown to be quite large the worms began to eat them, but I sprinkled salt on broadcast, which killed the worms. I also used insect powder, which is good.

I hoed them several times during the summer. Each time I loosened the earth around each hill so as to make them grow faster and head better.

When autumn came I picked eight hundred heads, some of which I made into sauerkraut, which sold for a fair price. The rest I sold for five cents a head. The poor ones I fed to the hens.

New York. WELTON GARDNER.

### Bean Culture

Beans must have warm soil, not low or damp. Damp soil favors a rust, which makes the beans unmarketable. Plant beans from June 1st to 10th, or perhaps later. Early planting favors the weevil.

Rich soils produce an overgrowth of leaves and heavy branches, making the shade too dense for the beans to mature perfectly. The poorer soils have another advantage in that the plant drops its foliage, hastening early and perfect maturity; plants in rich soils retain their foliage until frost, preventing the ripening of the beans. Select soil of medium fertility, or poorer, for your crop.

Drop one bean only in a place; eight or ten inches from that drop another, and so on across the field. By so doing each plant will branch out, and have light, warmth and room for every blossom to yield its pod of fully-matured beans. In this way of planting, one bean will yield as many perfect ones as five in a hill.

New York. C. E. MONTGOMERY.

## Farmers' Correspondence Club

### Cow-Peas

I've had nine years' experience with cow-peas, and if there is a better milk-producer I'd like to know what it is.

I use a two-horse corn-planter with holes in seed plates just large enough to hold one pea, and drop as close in the row as I can—about seven inches apart. This will require about six bushels for twenty acres.

I first go over the field, making rows three feet eight inches apart, then return, take off marker, and drive astride of every alternate row. This leaves the rows twenty-two inches apart.

I harrow before the peas come up, to fill up wheel marks and kill young weeds.

This is all the cultivation I give them, because on this upland weeds don't grow like they do in more humid sections. In a short time the vines cover the ground.

I've had the ground covered twenty inches deep with the Whippoorwill variety. Professor Massey, of North Carolina, says he has seen the "Unknown" or "Wonderful" pea cover the ground four feet deep.

To get the greatest benefit from the crop, one should turn in hogs to eat the peas, and larger stock to consume the vines. In this way everything is returned to the soil. Cow-peas not only furnish an immense amount of forage relished by all kinds of stock, but are a splendid soil renovator. Scientists tell us that bacteria in the nodules or tubercles on the pea roots gather nitrogen from the air. Others contend that the benefits are derived from the shading of the soil, and that like results would follow if the land were covered with boards, straw, etc.

Oklahoma. S. C. BUNSTINE.

### An Effective Device Against Birds

One of my worst troubles in the small fruit line was caused by the depredations of the birds. One of the finest fields of Columbian raspberries suffered very much every year. The fact that this berry adheres firmly to the stem even when fully ripe renders it more susceptible to injury than those kinds that part readily from the bush.

Attacking one berry after another, thus permitting the juice to flow, a vast injury was done by a single bird. The law against shooting prevented saving the fruit by slaughtering the foe. I tried everything I had ever heard of or read of in the scarecrow line, without effect. It was discouraging to have fully one third of the crop destroyed every year.

After various failures in my experimenting, I at length hit upon a device that not only saved the berries in all their luscious ripeness, but proved a godsend to the corn farmers as well, who had been pestered by that ravenous king of destroyers, the crow.

The device is so simple it can be made and set up by the veriest tyro. The first requirement is a pole from ten to twelve feet long. To this nail near the end a cross stick with a hole in the end to which is fastened a tin of say one foot in width to one and a half long. Attach this by means of a wire to the end of the cross stick in such a way that the least breeze will cause it to sway against the pole, which should be set upright in the ground.

This tin, wired about six inches from the pole so as to rap the upright at every breeze, frightens by the weird noise it makes every member of the feathered tribe. This is no longer an experiment, but an assured fact. I have used this in cornfields with the best of success.

Three of these poles with tin "rappers" were sufficient to save every berry in an acre field. I trust that the readers of the FARM AND FIRESIDE will give this device a trial. One trial will convince anybody of its utility.

Michigan. J. M. M.

### Sweet Corn as Stock Food

Nearly everybody plants a patch of sweet corn for "roasting ears," but there are few who plant it for stock food. We have found it to be one of the best and cheapest of stock foods. We generally plant it thick, so as to insure a thick stand.

Of course, a small patch will produce more than a family wants for kitchen use, but we always find use for the surplus, as it makes an excellent green food for hogs. We pull it with the husks on, and in this way save the labor of husking.

We chop up the fodder in a cutting-box, and wet and mix it with ground feed. This makes an excellent mash for cows and horses, and pigs eat it with avidity. Feeding this in the mornings saves a large amount of grain. Last year we fed mash in the morning to three horses and five cows, and fed the pigs green corn morning and night, for about a month and a half; all from a small patch of sweet corn.

Indiana. DONALD MCWILLIAMS.

### The Cabbage-Worm

The cheapest and best method to rid the cabbage of his disastrous onslaughts is to sprinkle unslacked lime over the head and leaves. I have seen this tried with satisfactory results.

Missouri. JAMES E. SPERLING.

### Remedies for Bugs and Mites

My remedy for flea beetles, cucumber bugs and cutworms in the garden is flour of sulphur dusted on and around the plants.

For mites in the hennery I spray with very strong soapsuds, one pint of soft soap to two and one half gallons of water. Fill every crack and crevice.

Tennessee. A. J. MATTESON.

### Renovating Worn-Out Land

At the back part of the farm—the part furthest away from the barnyard—there was a field of fifteen acres. To my personal knowledge, for fifteen years there had not been a forkful of manure of any kind applied to the lot, and an old settler who knew the farm well said that it had been cleared fifty years and "never had had a smell of manure in all that time."

It had been cropped right along in rye and mixed hay alternately. The soil became sour, moss showed in patches, and clover refused to grow. What to do with it was a problem. I asked the question at a local farmers' institute, "What should be done with a fifteen-acre lot that had been cropped right along, but which had never had any fertilizer during the last fifty years, and had become sour and unprofitable?" The reply was: "Let it grow up to weeds."

Instead of taking this advice I plowed it in the early spring, and kept it well worked until June 1st, then drilled in six pecks of cow-peas to the acre, letting every tooth sow. No fertilizer was applied, but the weather turned warm and continued favorable. The peas grew well, so that by September 15th there was a fairly good crop. These were turned under. On October 1st the lot was seeded to rye and timothy, and clover was sown in the spring. When harvest-time came there was more straw taken off that fifteen acres than had been harvested in other seasons all told; the seeding of clover was perfect. The following haying season saw one of the best crops of hay ever seen on the land. Several times since then I have sown cow-peas and turned under with most pleasing results. The past two summers have not been warm enough to induce big growth of vine.

New York. E. H. BURSON.

### Sure Death for Cabbage Worms

Take a common pepper-box and sprinkle a little pepper on the heads of the cabbage when the worms work on them. Repeat two or three times in the course of two or three weeks.

New York. OLIVER BURROUGHS.

### Soy Beans for Silage

A number of experiment stations have conducted experiments in making and feeding soy-bean ensilage, and the results have been quite satisfactory. By using the larger, coarser-growing varieties a heavy yield of forage may be obtained.

The silage keeps well, is eaten readily by stock, and the animals show good results in flesh or milk production. The crop is an easy one to put into the silo. The ensilage is more palatable than the hay, and can be fed with much less waste. There is usually less loss in cutting the crop and putting it into the silo, owing no doubt to the liability of the leaves to fall off during the process of curing and storing the hay.

Excellent results are obtained by making a mixed ensilage of soy beans and corn or millet.

In some parts of the country the soy-bean crop is often pastured. Although hogs are most frequently used, all kinds of stock can be pastured on it. The crop

can often be fed in this manner to a great advantage. The labor and expense of harvesting is saved and the droppings from the animals are of value to the land. Young stock, particularly sheep and hogs, can be very profitably pastured on this crop. Many farmers maintain that by this method the land is benefited as much as if the crop had been plowed under.

Indiana. M. F. BOONSHOT.

### Corn for Cow Feed

Do not forget successive plantings of corn for cow feed during the season of short pasture, which so often comes in late summer and early fall.

Do not make the mistake of planting too thickly, or the fodder will be watery and of little value.

Do not plant much thicker than an ordinary crop of corn, so there will be a good ear on each stalk. Ordinary corn will do.

Ohio. A. M. WALDE.

### Spanish Peanuts

Any ground that will grow a crop of bunch soup beans will do for peanuts.

Before planting the shell should be broken crosswise, taking care not to break the thin covering on the seeds. Single seeds may be dropped eight inches apart in the row. Leave just room enough between the rows to cultivate. The seed should be covered about two inches.

After they are up, cultivate as a crop of beans—nothing more nor less. The prevailing notion that the blossom must be covered is a mistake.

When planted on high ground lying to the sun, and where early frost may not reach them, the chance for a well-matured crop is much better than when planted on low ground.

They may be left in the ground till quite late, as they improve some after the first light frosts. I find it a good plan to wash them at pulling time while on the stalks, and then spread in the sun to dry. When dry, pluck them and store them away.

Pennsylvania. CORNELIUS CLOUSER.

### Planting Cabbages

For planting cabbages and cauliflower we first make a furrow and scatter fine, well-rotted manure in it. Then we run through the furrow with what our grandfather called a "bull-hook," which throws the soil into a ridge in the middle of the furrow. On this ridge we set out our plants, and you ought to see them grow.

Pennsylvania. M. M. FORTENBAUGH.

### The Eradication of Noxious Weeds

One of the great secrets of success in fighting any kind of weeds is to begin the destruction of them as soon as they appear above the surface of the ground, and not delay until they have become well established all over the farm, before any serious attempt is made to kill them. When some weeds, such as wild mustard, sow thistle and wild oats have spread over a man's farm, it would take nearly all the farm is worth to eradicate them. If they are taken in time, however, they may be easily kept in check, if not thoroughly eradicated.

Some weeds, such as wild mustard and wild oats, have seeds of such remarkable vitality that they will lie in the ground for years, ready to germinate when they are brought near the surface. Weeds of this kind may be destroyed by growing a succession of seed crops and keeping the soil well cultivated, taking care that none of the plants are allowed to go to seed. In a soil infested with weeds of this kind, deep plowing after a hoed crop undoes practically all that has been accomplished by bringing to the surface seeds deeper in the earth. A solution of copper sulphate has been found to be a very good destroyer of mustard if put on just before blossoming.

Among the perennial weeds there are some very dangerous ones such as sow thistle and couch grass. The first named is hardest to kill, as it not only spreads by seeding, but also by shoots from the roots, which in turn go to seed and send forth other shoots. To fight these weeds successfully, the best plan is to attack them during the period of most rapid growth, usually during May or June. The ground should be plowed lightly in the spring, and when the young plants appear should be consistently cultivated in order to cut the roots.

If a field is badly infested with couch grass, it will be necessary to plow it, then harrow it thoroughly and plant a rape crop. If rape cannot be utilized a good dose of summer fallow might be substituted with very satisfactory results.

These are merely general suggestions. Each farmer would have to modify the plan to suit his own peculiar conditions.

Canada. W. B. M.



### Poisoning Cutworms

**A**FTER making several experiments in poisoning cutworms, which were working on wheat and alfalfa, the Oklahoma Experiment Station recommends the following mixture:

Thoroughly mix, while dry, one pound of paris green and fifty pounds of wheat bran; make moist, but not sloppy, by adding water in which a quart of cheap molasses has been dissolved. Place this mixture in spoonful piles where the worms are working. It attracts the worms from the wheat and oats. It is also good grasshopper poison.

### Succession of Forage Crops

Advising a New England inquirer about growing a succession of forage crops on a thirty-acre dairy farm, the "Rural New Yorker" says:

First of all we would send to the New Jersey Experiment Station and obtain bulletins showing how the milk dairy is conducted. At this station each acre, except the land in grass, yields two or three separate crops of forage each year. For example, part of the land is kept year after year in corn. At the last cultivation crimson clover is seeded in this corn. This grows through the fall and again in the spring, giving excellent green forage or hay.

The stubble is plowed under for corn again, and so on year after year, the soil growing more productive each year. If crimson clover would thrive in your country we would sow it at the last working of the corn. Cut the clover about the middle of May, and seed the land to either Canada peas and oats or Wonderful cow-peas. Cut these crops when mature for hay or green fodder, and then work up the stubble thoroughly for grass seeding. The chances are that crimson clover will not do well with you. In that case we would sow rye in the corn, cut it early in spring, and follow with the oats and peas or cow-peas. It would be possible, in some seasons, to cut the rye very early, sow oats and peas, cut this crop when green, work up the soil and cow-peas—cutting this crop in time for grass seeding. The objection to this plan is the large amount of work required in fitting the land, but this can be largely saved, if you have a strong team, by the use of a disk harrow, well loaded down. We would not sow grass after grass, for unless you spend more time in breaking up the old sod than you would in growing the cow-peas or oats and peas, you will not have a good meadow. In this way you will have each year six acres of corn, six of rye and peas and eighteen of grass—or you can change the amount as you please. We would put all your manure on the ground each year. This corn ground will be the three-year-old sod, and the manure can be hauled and spread on it at any time after cutting the grass. After plowing the manure under we would use one ton of acid phosphate and six hundred pounds of muriate of potash on the six acres, broadcast and harrowed in. We would prefer these chemicals to the manure at four dollars a cord. This ought to give two fair crops of grass as well as the corn. For the third grass crop we would use at least six hundred pounds per acre of a high-grade potato fertilizer. With a portable fence and the field in cow-peas you could use that crop for pasture—both for cows and pigs, and thus save the work of cutting and curing the hay.

### Manure-Spreader on a Small Farm

One of the questions up before the progressive farmer engaged in diversified farming on a moderate scale is the purchase of a manure-spreader. He sees them in profitable use on large farms, and in special farming, and is asking if the advantages justify the purchase of the machine for his own use.

On this subject Mr. R. H. Taylor, in the "Ohio Farmer," says:

The farmer who is working a small farm of eighty to one hundred acres must exercise good judgment in the selection of his farm implements. The profits do not usually warrant a large outlay, and it is important that such implements as are purchased shall yield him the largest returns. To such a man these questions are always pertinent when considering the purchase of any piece of machinery: Is it practical for my conditions? Will it return me a reasonable interest on the investment? These questions asked with reference to the modern manure-spreader, we believe would be answered affirmatively.

We have become so accustomed to the old way of handling manure that it is not easy to convince ourselves that a new method presents advantages sufficiently large to pay the first cost on a high-priced machine. Yet every thorough farmer wants to first, save every available pound of manure, both liquid and solid, which is made on the farm, and second, to place that manure on his fields in the best possible condition and cover the largest possible acreage. This the modern manure-spreader does much better than it can possibly be done by hand. It does this

in several ways. The manure thus applied is thoroughly pulverized and spread. The same amount can be made to cover at least one third more ground, thus enabling one to get over his fields oftener. It is often desired to give a heavier spread to certain parts of a field than to others. The amount applied can be regulated by the operator without stopping his team.

In our section, top-dressing on wheat and clover has become a favored practice. In this work a manure-spreader becomes an absolute necessity from the fact that the manure for top-dressing any crop should be pulverized much finer and spread thinner than is possible by hand spreading. With us this method of application is becoming almost universal, and we believe that more benefits are derived from the manure made on our farms than would be obtained in any other way.

As a time and labor saver the manure-spreader ranks with the self-binder and other implements of that class. One man with a good team will haul and spread, with a spreader, as much as two could possibly handle by hand. In those sections where farm help is scarce this latter feature is no small item. In the selection of a machine, the proposition is very similar to that of any other farm implements. They are all good—they have to be in order to sell in these days of close competition. So the selection is largely a matter of taste. The durability of any machine is one of the features in which the purchaser has a vital interest, and our observation has been that a manure-spreader when properly cared for will last for many years.

### Care of the Soil

It is just as important to keep the soil in proper physical condition as to prevent exhaustion of its fertility. "Successful Farming" tells of the part humus plays:

Soils are a compound of mineral and vegetable matter. The more abundant the vegetable matter the better, provided the necessary chemical elements are present. The vegetable element in soil is called humus. It consists of decomposed roots, leaves and stems of plants. This humus eventually breaks up into the chemical elements of which it consists. The plant takes up nitrogen, oxy-



IN FRESH PASTURE

gen, phosphorus, potassium salts, etc., and when the plant dies it eventually goes back to that form from whence it came.

A soil lacking humus is heavy, sticky, too solid to admit water freely, and is almost air-tight as well as water-tight. Plant roots need air just as do the leaves. When they lack it the leaves turn yellow and die. When a heavy rain falls upon a newly planted cornfield that is of the heavy clay sort, the earth granules puddle, or run together. When the rain is over, this puddled surface dries and bakes and forms an almost air-tight cover over the field. You've got to break that crust or the young corn can't get through very easily, and if it does it will not thrive because it can't get air below the surface. The decomposition of chemical elements depends upon soil bacteria, and soil bacteria depend upon air, so the plant not only smothered but starves as well.

Humus makes soils more granular by giving bulk. Granular soils do not puddle readily, do not wash, do not bake. Granular soils hold more water than the opposite kind. A puddled surface forms a perfect wick or water ladder, so that water is enabled to escape by capillary attraction. Granulation breaks the ladder and less water climbs out.

### How to Succeed with Clover

The usual treatment of clover-sick soils is an application of lime. This puts an acid soil in condition for growing good crops of clover.

In the common rotation of corn, wheat and clover, after a period of years, there is a marked decrease in the yield of clover, and, eventually the land becomes clover-sick. The cause may be too heavy cropping with clover. On this point J. B. Huyett, in the "American Agriculturist," says:

Experiments with clover in England have been made by Laws and Gilbert for fifty years, and they say that no direct supply of manure, in ordinary form of farmyard dung, or of the current artificial fertilizers, is capable of restoring the soil from which a heavy crop of clover has been taken to a condition of immediate productiveness for the same crop. If this is true, it seems that in cases of clover-sick land the best thing to do would be to practice a form of five-year rotation, and thus get our land in shape for clover. We often get a stand of clover in the spring and at harvest our crop looks all right. Then we are apt to let it shift for itself, thinking that our clover crop for the following year is a sure thing.

Right here is where we make a great mistake, for ragweed, foxtail and other filth spring up, shade the clover and pump the moisture out of the soil. Consequently, when a short drought comes our clover perishes, and the following spring finds us without our desired crop. All this trouble can be avoided by running our mower over the field and clipping the weeds and stubble just above the tops of the young clover, and instead of the filth being a detriment to the crop, it acts as a beneficial mulch, and helps retain the moisture in the soil for the tender clover.

### Ground Your Fence Wires

Frequently farm animals are killed by lightning when near a wire fence during a thunderstorm. Protection is furnished by grounding the wires. "Wallace's Farmer" gives the following instructions:

The object in grounding fence wires is to bring each wire of the fence into close con-

### Cotton is King

[CONTINUED FROM PAGE 1]

work he will be supplied with all the necessities of life, and a few of the luxuries, and this whether he has any money or not.

All the year round cotton is the absorbing topic of conversation. The boy can go to college if cotton reaches eight cents, the family is in debt if it goes below six cents, for that is estimated as the actual cost of raising this vast crop, which requires twelve months of incessant labor afield, in the gin and compress. Early in January the farmers begin to clear up their broad fields and tiny patches; later plowing progresses slowly, while the singing negroes urge the patient mules up and down the brown earth. Furrows about three feet apart are laid and enriched by various chemical fertilizers, then covered by a skillful turn of the plow. The cotton seeds are not sowed broadcast like wheat, but a small wheelbarrow-like "planter" is used, from the box of which pours a stream of cotton seed. These are covered lightly, and soon, during May and June a thick line of small green plants appears. Armed with heavy hoes "the hands" set to "chopping cotton," cutting away two thirds of the plants, leaving several at intervals in the rows. This is repeated with great dexterity until a single hardy cotton stalk is left quite alone. Then comes the contest with grass, vines and weeds, for cotton is a sun plant that thrives best on bare earth under a sun hot enough to scorch a lizard's back. It is doubtful if there is another plant on earth of equal value to the human family as this "weed," as the early colonists contemptuously dubbed it. The blooms appear yellow and pink, die and fall, exposing a triple leaf covered and "square," from which soon emerges the boll. Inside mature the silky fibres, each with several tiny black seeds firmly attached. To preserve these seeds nature added the lint; but ingenious man strove to separate the—until recently—useless seed and spin the cleansed lint. This separation is called "ginning." There are numerous public and private gins all through the South, where a charge is made for ginning and loosely baling the lint. The baled cotton is encased in coarse jute bagging held in place by narrow steel hoops until it reaches the factories either in the South or New England. These bales average 500 pounds in weight. Cotton that is destined for shipment is reduced to one fourth bulk by steam presses of great power.

It was not until the early 70's that the planters found that the cotton seed had a value, and this has increased so rapidly, owing to the variety of the cotton-seed products, that it is rapidly approaching that of the cotton itself.

There are 4,000,500 tons of seed raised in excess of those reserved for replanting. These are stored in "seed houses," placed at convenient points in proximity to the gins. The raw seed brings from twelve to eighteen dollars a ton in bulk. Shoveled into box cars it is shipped direct to one of the cotton-seed oil mills which dot the railways of the South.

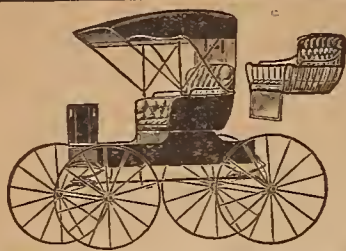
The oil is used for illumination, as a basis for numerous medical compounds, for the manufacture of paints, soap, candles, lard, butterine, cottolene, cooking oil, to temper steel and for coarse lubricants. Above all it supplants olive oil. As proof of its being perfectly palatable, the negro employees use it freely in place of butter upon their bread.

It is estimated that the investment in the cotton industry will probably yield an annual return of something over \$55,000,000. The total value of oil, meal, hulls, linters, etc., exceeds \$113,000,000 a year, or nearly one half the value of the cotton crop proper.

The price of cotton for the whole country is practically adjusted by New York and New Orleans markets, they in turn being influenced by prices at Liverpool, which market has for many years controlled the cotton markets of the world. As regards future contracts, New York is by far the most important market in the world, and entirely disregards European prices and sales in its fluctuations, which are affected solely by the strength or weakness of the speculative element in whose operations the small annual crop is sold and resold ten times over again and again.

The world's production of gold in 1903 was valued at \$325,000,000, of which the United States produced \$73,500,000. The value of the cotton crop of the United States for the year 1904, at the low prices then prevailing, approximated \$376,000,000. While the industry may have lost, in some measure, its early commercial and political significance, as expressed in the phrase "Cotton is King," it is still one of our most important products, upon it resting the material welfare of a large section of our country, and occupying a high place in the world's economy, as one of the most essential contributors to its comfort and prosperity.





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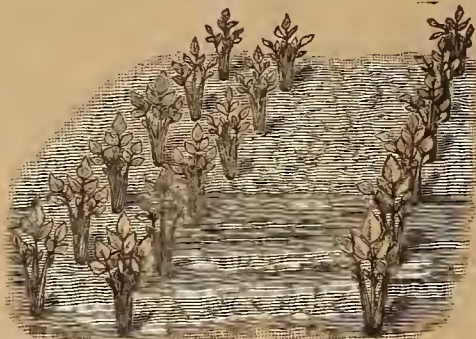
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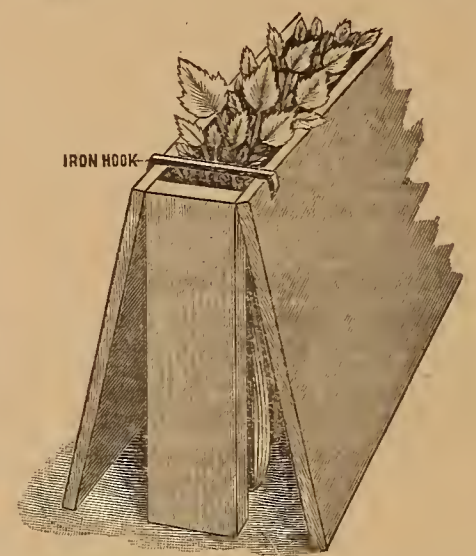
## Gardening

### Celery Queries

THE question is asked by an Illinois reader whether it will be much more work to hill celery that is planted in double rows than in single rows. This plan of making double rows for the early celery, is a good and



economical plan. I have secured most excellent results from it, and seen it practiced successfully year after year by large commercial celery growers. But we hardly ever hill the early celery, but prefer to blanch it by means of boards. It will be seen that by the same manipulation, and the same quantity of boards we are enabled to blanch double the amount of celery that we could if the plants were set in single rows. The late celery we have



usually set in single row, and blanched by means of hilling; but it is entirely feasible to make double rows also in this case, and the labor of hilling will be but slightly greater than for single rows. The same party also inquires whether he could keep blanched celery for five or six weeks by packing it down on a slant, with earth between the layers, as it would require less straw for protection. The plan is not practical. Celery in storage makes a continuous growth. You may pack the green celery into a trench, or on the floor of a root cellar, and soon it will come out part-



ly white, showing the new growth from the heart. But the new growth is straight up, not slanting with the rest of the plant thus packed, and packing it on the slant would spoil the shape of the plant. The plants that we pack away to keep for winter or over winter are at most not more than partially blanched. We depend on the new growth made while in storage to give us the blanched celery. The best thing that can be done with celery that is already perfectly blanched is to use it, or put it on the market immediately, not to store it for any length of time.

### Useful Garden Implements

I have often wondered about the peculiar name of the Allen garden implements, especially the "Jr." appendix. Mr. Samuel L. Allen, who is the inventor or builder of all the Planet and Planet Jr. implements up to this time, and holds about sixty patents, tells me that the first

garden seed drill of this kind was called "Planet" because of a resemblance to Saturn and her rings, and that the improvements were called "Planet, Jr." The gardening implements in use before that time were the Boston Market Garden drill, the Comstock, the Wethersfield and some others of less renown. The first of these goods, in the shape of the Planet garden drill, was made nearly forty years ago, and soon became popular.

Thirty years ago we used the Ruhlman wheel-hoe with a good deal of satisfaction, especially in the onion field. This implement has gone out of fashion and use; I hardly know why, for it served its purpose admirably, and I believe as well as any later make of wheel-hoe. Now we have the choice of several kinds of garden drills and hand wheel-hoes.

### The New Hardy Celery

I have no doubt that the Michigan nursery firm which is introducing the "Silver King Hardy" celery as a vegetable wonder, as "the most sensational discovery in the vegetable kingdom; a celery that is everlasting and perfectly hardy in any climate; a root that never dies and when once planted stands for a lifetime," are fully convinced that they have a novelty of great value. It often happens that someone finds an apparently valuable thing that is new to him and that he thinks is a prize, only to be told later on that the supposed novelty is one of the many old plants that have been grown years ago and crowded out of our gardens by newer introductions or creations.

The qualified indorsement which Professor Taft, of the Michigan Agricultural College, gave in "American Florist," has made the introducers of the new "perennial celery" quite sure that they have good cause for their claims. Professor Taft says he has never seen anything that even resembled it, but from the description given of "Archangelica" he thinks it may be a European species of that genus. "The flavor," he says, "quite closely resembles that of celery, although it does not have the distinctive 'nutty' flavor that is characteristic of the best celery." This last statement alone would be apt to make me suspicious.

But here comes Prof. W. W. Hilborn, of Ontario, who, in "Rural New Yorker," repudiates the rather extravagant (I might say impossible) testimonial which the introducers print over his name in their circular, and says: "We tested a large sample of the stalks last spring. These we had on the table a number of days. At first our family ate quite freely of it, and thought it a very good substitute for celery, especially as it came early in the spring, when there was no other. After using for three or four days most members of the family ate very little of the vegetable, in fact, we would eat as much of the true celery in two meals as we could of that in four or five days. During the summer I saw the plant growing, and believe it to be the same thing we grew in our garden over forty years ago. It was called 'lovage' or 'smellage.' The leaf is not unlike celery, but when you crush it between your thumb and fingers, it has a very rank odor not at all like celery."

Now whether this new plant is really the old smellage of our gardens (*Levisticum officinale*) which we veterans in gardening well remember and often heard talked about, or one of the "Angelica" or "Archangelica" tribe, this also having been grown in European gardens, and blanched and used like celery years ago—enough has been shown, I think, to make me give up any idea, if I ever had it, to pay three dollars for two plants of this new Silver King; not even to satisfy my curiosity. A vegetable that we can get sick of in three or four days is not worth the price.

### Early Bunch Onions

"Early bunch onions are easily grown and always pay well," says the "New York Farmer." "They find steady sale, and while they do not sell as readily as radishes, they hang on better and sell well after radishes are a drug on the market."

The "Farmer" advises to get sets, which can be purchased at from \$2.50 to \$3 a bushel, and plant them two inches apart in rows, the rows to be wide enough apart to cultivate either with hand wheel-hoes or by horse.

Whoever wrote this, I do not imagine ever grew many bunch onions for market. There was a time when green onions grown from sets could be marketed with a profit. But recently the trashy winter

onions are being grown and marketed in such quantities, for many markets, that the better and more expensive onions grown from sets cannot compete with them any more. When one has to pay three dollars, and often more, per bushel for sets of often indifferent quality, it costs a good deal more to grow the crop. The sets cost money, and it costs money for labor to set them, too.

I have grown bunch onions much more cheaply, and three or four times as many on the same area, by sowing seed of White Portugal, Hardy White Winter, etc., thickly in open ground about August 1st, in rows a foot apart, and leaving them out all winter. In any case, the main expense comes in harvesting the crop. It is a good deal of work to clean the onions and bunch them, and even after the crop is already made and ready for the gathering, the expense of getting them ready is such that at the ordinary prices paid for the onions, the profits will dwindle down to nothing unless the whole business is managed systematically and economically. I sold some thousands of dozens of bunches last year, averaging about fifteen cents a dozen wholesale, and this figure was in most cases far beyond the regular market prices, and was paid to us only because of the superior quality, sweetness and tenderness of my white bulb onions. But I would hardly care to grow bunch onions for market if I had to buy and use sets.

### Chicks vs. Ants

A friend tells me that he once taught a flock of chicks to tear down ant-hills and eat the ants. Afterward that flock of hens kept the premises free from ants for several years. Education is a good thing, even for chicks and chick owners.

### Setting Plants

From this time on we are more or less engaged in the business of setting plants. Our onion plants (Prizetaker and Gibraltar) are almost invariably dibbled in with the finger. I can easily set five or six thousand plants in a day in that manner. In some cases, in order to protect my finger (index finger of the right hand), I have used a rubber "finger cot," and in fact, I usually, at this time of the year, carry one in my pocket for an emergency.

For setting larger and longer-rooted plants, such as celery, cabbage, strawberry, etc., I often use either a small, sharp-pointed trowel, like Reeves' angular trowel, or a regular dibble, but when setting plants with a chunk of soil adhering to



ANGULAR TROWEL

the roots, like early, greenhouse-grown lettuce plants, cabbage, cauliflower or tomatoes, the common hoe comes handy. For setting ordinary cabbage plants, tomato plants or any others with roots free from soil, I know of no implement that gives better service on my clay loam than a sharp, bright, narrow-bladed spade. One man, holding the face of the spade toward himself, thrusts the blade into the ground and pulls the handle to himself, while a boy inserts the root part of plant in the opening thus made, letting go when the man with the spade has withdrawn this tool, and pressed the soil against the roots of the plant with the foot. It takes less time to go through the operation than to describe it. I can easily imagine soil conditions which would make the use of the



A MODERN DIBBLE

spade impracticable. To work well, the spade must be kept bright and free from adhering soil. The soil must be moist enough to hold together, and yet not so wet as to be sticky. If conditions are right, a man with the spade could easily set an acre of strawberry plants in a day. I would not undertake to do that with any trowel or other tool ordinarily used for setting plants.

For large-scale operations the modern transplanting machine is almost indispensable. The large cabbage growers of this county use it with great satisfaction. The "Bemis" transplanter is the only one of which I have any personal knowledge, and it sets the cabbage, tomato, strawberry and similar plants pretty fast. It requires one person to drive, and two boys to feed the plants into the hopper. I have never yet found a hand transplanting machine that I cared to use or own.

*N. Greiner*



## Seedless Fruits

**W**E HAVE just received a communication purporting to give the exact way of producing seedless fruits. This states that the way to do it is to split the stem of the tree when young, spread it open and remove the pith; as a result of this treatment the tree will bear seedless fruit; that if the first operation fails to eliminate all seeds, then take grafts from the tree operated on, and treat in the same manner, and the fruit will be entirely without seeds and grafts, and buds from these seedless trees will continue to produce seedless fruits.

This suggestion for the production of seedless fruits was made many years ago and had a great deal of advertising. It is, however, entirely without foundation from every standpoint of good botanical reasoning or from any results that have ever been obtained from it in an experimental way.

The seedless fruits of commerce are the kinds that have originated from seed, and simply appeared with the seedless characteristics developed; no one knows how or why it has appeared. Among the seedless fruits might be mentioned the banana, the navel orange, the little Zante grape which makes up the common dried currant of our grocery stores, and Sultana and Thompson's seedless grapes, which are used for raisins.

It is thought by many that plants that are not propagated by seed from generation to generation have a tendency to lose their power to produce them. The plants mentioned are propagated without the use of seed by division, that is, by grafting, budding, cuttings, etc. We find likewise in the case of the potato that while forty years ago the Early Rose, Garnet Chile and other potatoes introduced about the same time had plenty of seed balls, now the modern varieties of potatoes produced from them scarcely produce any seed. This seems to be due to a weakening of the stamens which fail to produce pollen. In this connection it should be noted that the potato is a plant that is grown by cuttings year after year, with only an occasional resort to seed production, and hence the suppression or weakening of the unused parts which should produce seed.

## Inquiries Answered

## Borers in Peach Trees

E. C. K., Fairmont, W. Va.—Your peach trees are undoubtedly infected with what is known as the common peach-tree borer. This is a borer the eggs of which are laid on the bark of the tree, generally near the surface of the ground by a wasplike-looking moth. These eggs hatch in a short time and produce small grublike worms which work into the bark under which they live for one season. As they feed they make tunnels for a considerable distance under the bark, and often completely girdle the tree. Where this injury is done the tree exudes a gumlike secretion that covers up the wound.

The best treatment is to look over the trees in the spring and again in August and cut out and destroy the borers after removing the gum. The method suggested is that commonly followed by the owners of large peach orchards.

There are a great many washes and other remedies suggested for the peach borer, but they are not satisfactory.

## Worms on Currants

J. W. T., Minneapolis, Minn.—The worms that eat the foliage of your currant bushes are quite easily destroyed by spraying the foliage with paris green and flour, mixed together at the rate of one part to fifty by bulk. This should be dusted on the bushes early in the morning. The worms work on the leaves when they are very small, and this material should be applied as soon as the leaves appear, and be repeated after each rain for perhaps two or three weeks.

There is no special danger in the use of paris green in this way, as it will not poison the fruit.

## Seeds from Grafted Fruit Trees

A. J. E., Cataline, Texas—The seeds from grafted fruit trees will grow just as easily as those from seedling trees, and the fruit is often as good quality, although generally it is inferior to the kinds from which it comes, for the reason that our cultivated fruits are selected sorts. In the case of peaches, the seedling trees are more apt to be like that from which the seed came, than in any other of our commonly cultivated fruits.

## Keeping Qualities of Grapes

M. P., Penn, Idaho—Of the types of grapes commonly grown in the Northern states east of the Rocky Mountains the best keepers are perhaps the Niagara and some of the Rogers hybrids, such as Agawam and Salem. The Concord, however,

is also a fairly good keeper. The European grapes, such as Tokay and Hamburg, are excellent keepers, but they are only adapted to a mild climate, and in this country are limited practically to the more desirable sections of southern California and the warm states adjacent thereto.

Probably the most practical way of keeping these grapes is to put them in baskets in cold storage. They might possibly keep a little better if laid out singly on trays, but the difference is not sufficient to pay for the extra expense. A common way of keeping them in Europe is to store them in cork sawdust, or to cover them with flax seed.

## Is Petroleum Poison?

E. C. H., Cynthiana, Ky.—Petroleum used to spray the orchards would not poison sheep feeding on the grass under the trees. In fact, petroleum is not poisonous except in very large doses.

## Hydrangeas in Winter

M. H., Goshen, N. Y.—The common hardy hydrangea cannot be brought into bloom in winter. The kind that is commonly forced in greenhouses and brought into flower in the latter part of winter is the hydrangea which goes under the old name of Hortensia. This is grown from cuttings of the new wood in the spring. The plants from these are grown thriftily during the summer and on the approach of cold weather are put into a cold cellar, where they remain until about the middle of December, when they are brought into the greenhouse. Under this treatment they will generally bloom in the latter part of winter.

## Fertilizer for Strawberries

W. M., Marietta, Ohio—Probably the best fertilizer for strawberry plants is stable manure. Where this cannot be had, as in your case, it will be necessary to resort to some commercial fertilizer. But these should always be used in conjunction with green crops. I would suggest that you adopt a system of rotation for your strawberry land, if you can do so. This rotation might consist of growing clover, followed by corn, which should be manured with some good corn fertilizer, such as bonemeal or bonemeal and potash salts, and the strawberries can follow this crop. Under this treatment, however, it would be a good plan to give the strawberry bed an application of one hundred and fifty pounds of nitrate of soda in the spring—soon after the plants start. This for the purpose of giving them a good send-off. I know of no other satisfactory way of keeping up the soil in the absence of stable manure except some such treatment.

## Bugs in English Currants

C. C. S., Melrose, Mont.—The English currant is as a rule a very healthy plant and the fruit is seldom injured by insects. It seems to me that the insect that affects your currants must be some native worm that feeds on wild fruits. If so, it will be quite difficult to destroy the same. The only remedy I can suggest to you in the absence of a full life history of the insect, is to pick and destroy the fruits while infested and thus destroy the insect. If this is kept up for a year or two the chances are that the insects will be much lessened if not entirely destroyed. It is possible that this insect was introduced into your vicinity with the currant bushes you had shipped in.

## Peach Trees from Seed

G. W., Austin, Tex.—I am inclined to think that peach trees grown from seed, without transplanting or budding, will probably make longer-lived trees than those that are handled in the usual way. But this is not necessarily so, and we have—in good peach sections—very old peach orchards of named kinds. I do not think, however, that the transplanting of peach trees especially injures them, nor that trees that were grown from seed planted in place and then budded would be any better than those that are budded and transplanted later. Of course, transplanting sets the tree back a little, and if the seed was planted where the tree is to remain permanently this set-back would be avoided, but this delay is so slight as to be of no particular account. I am very positive that such trees would not be more prolific. If something of this kind were to be attempted I think the trees should be budded, as is customary in nurseries, in the first year, ordinarily in July or August.

Peach seed that has become very dry will frequently fail to start the first year

when planted, unless it is first stratified. By stratifying I mean burying the seed out-doors under such conditions that it will become moist and afterward freeze. In practice we carry out a plan much like the following:

With three bushels of peach pits to be stratified, we lay off a place in some dry situation in the garden or nursery, about one yard square. Smooth the soil and put on a layer of about two inches of peach pits. Cover these with about one inch of sandy loam, and so on repeat the process layer after layer until all the pits have been put in. This should be done in the autumn. The pile should then be covered with inverted sod to keep it from drying out, and if somewhat dry should be moistened. Under these conditions the seeds will soak up a considerable amount of water and the freezing later on causes the shells to crack. When we are ready for planting in the spring of the year, which will be as soon as the ground is well settled, we uncover the pit and sift the seedlings out from the sandy loam in which they were buried; examine each pit carefully to see that it is cracked. If not cracked, then we crack it with a hammer. We then plant them out in nursery rows, four feet apart, and about eight inches apart in the rows. The growth from these will be sufficient so that they can be budded in August or September. The following spring they should be cut back to the bud, which later will make a good tree for transplanting in one year.

## Best Strawberry

E. G., New York City—It seems to me that what you need is some elementary treatise on the subject of growing strawberries and other small fruit rather than any account that could be given in these columns. I would suggest, therefore, that you get some little book on strawberry raising.

Amateur Fruit Growing is a book that is probably well adapted to your purpose, and may be obtained from The Webb Publishing Company, of St. Paul, Minn., at fifty cents a copy.

## California Privet

M. J. S., York Springs, Pa.—California privet is raised from the cuttings, and if you wish to use this plant for a hedge, the cheapest thing you can use to advantage is probably one-year-old rooted cuttings. These should be bought at a low figure.

## Cranberry Growers' Association

A. H. F., Jackson, Mich.—There is a strong cranberry growers' association in Wisconsin. I think that one of the officers of the association is A. Clark Tuttle, Baraboo, Wis.

## Preserving Solution for Exhibition Fruits

D. H. B., Spring Hill, Kan.—I have had some little experience in putting up fruits for state and world's fairs, and at the St. Louis Exposition got best results by preserving the fruits in a solution made of seventy-eight parts water, two parts formaline and twenty parts alcohol.

## What Trees to Plant on Poor Land

C. E., Reinersville, Ohio.—As to what will be best to plant on your poor land, you do not state in what way it is poor, whether because it has a gravelly subsoil, or whether water is too near the surface, or whether stony, or otherwise inferior. It seems to me quite out of the question to answer your inquiry without knowing more about your conditions. If the soil is a porous clay, reasonably well drained, black walnuts would do very well on it, as you suggest; but black walnuts do well only on good land, and if a light, gravelly soil, you might be able to grow chestnuts on it to advantage. Peaches will often do well on land too poor for other crops, provided the location is right, and it might be well for you to consider them in determining what is best to use on your land.

## Double-Worked Apple Trees

A double-worked apple tree is not necessarily worth any more than a single grafted one. However, in the case of such varieties as Wealthy, double working may sometimes be used to advantage, in order to secure crotches that are better than those of the Wealthy itself. The Hibernial apple is a good stock for the Wealthy. It has good crotches, while the Wealthy has weak crotches, and when the Hibernial is grafted with the Wealthy after it is branched you get a tree that is more durable than the Wealthy would be simply root grafted.

## Nodules on Roots of Black Locust—Black Locust for Posts

A. J. E., Cataline, Texas—The locust belongs to the same great order of plants as the clover and alfalfa, that is, to the pea family, and the nodules on the roots undoubtedly perform the same functions in taking the nitrogen from the air and storing it up for use of the plants as is performed by the nodules on the roots of cow-peas, clover, etc. It is probably on this account that the Black Locust grows so rapidly, even in quite inferior soils.

The Black Locust is one of our most rapid-growing and yet valuable forest trees, and where it is not badly infested by the borer it is specially valuable to grow for fence-posts, railway ties, and similar purposes where great durability is needed. The wood is also very strong. It grows very rapidly. It should not be planted where its sprouts would be troublesome.

The seed of the locust does not start readily when sown, and will often remain a year in the ground without coming up, unless it is first scalded. This scalding should consist of pouring hot water over the seed, when it should be allowed to stand until cool. After cooling the water is poured off and the swollen seeds picked out, and the process should then be repeated with the remaining seeds until all have swollen. When treated in this way the seed comes quickly when sown in the open ground.

This tree is attracting considerable attention from railroad men and others who need large amounts of durable timber.

## Armour Barberry

F. D. P., Harris, Iowa—The Armour Barberry is undoubtedly hardy enough for your section, but I do not like the habit of the plant for a windbreak, nor do I think it large enough. It does not stand trimming well, and is too sprawling.

I do not know just where you are located, but in southern Minnesota, on good soil, the arbor-vitæ is generally considered reliable. It seems to me that for a quick-growing windbreak you would get much more satisfaction out of the Russian Mulberry than out of either of these plants, although the arbor-vitæ will make a magnificent hedge in time, but you will not get nearly as quick results from it as from the Russian Mulberry. You might make a combination of the two by putting the arbor-vitæ inside the mulberry, with the idea of later on removing the latter. Or you could use the white willow in place of the mulberry to advantage.

I think you would find the arbor-vitæ desirable for a lawn hedge.

## Removing Foliage from Grapes

J. L., Springfield, Ill.—I think it is a bad plan to remove the leaves from grapes at any time during the growing season. We must look upon the leaves of the grapes as being to the plant much the same as a stomach is to an animal, as it is in them that the food is digested and prepared to nourish the tissues. The sap that comes to the fruit from the roots is what is known as crude sap, and must be digested in the leaves and mixed with material which the leaves obtain from the air before it can be used by the plant to build it up. It is on this account that we take so much pains to keep the foliage of our trees and other plants healthy, as otherwise they cannot perfect their fruit.

I know it has been the practice in some sections for growers to remove some of the leaves around the fruit, but it is a practice that has nothing to commend it. In the case of apples the color is dependent largely upon exposure to sunlight, but in the case of grapes they color just as well—if not better—when partially shaded as they do when fully exposed to the sun.

## Oak Trees Hurt by Ants

E. O., Hastings, Minn.—It is possible that your oak trees are being killed by black ants, but I am inclined to think that before the black ants came the trees were infested with the common oak borer, which is very troublesome in Minnesota, and after the borer had started its work the ant found in its channels an easy chance. The ants can be got rid of quite easily by the use of bisulphide of carbon. This is a compound which is much the same as gasoline in composition and should be handled with the same care. The way to use it is to wet a piece of cotton about the size of an egg with the material, and place it on top of the ant hill, and cover it and the ant hill with paper or something that will confine the vapor of the bisulphide of carbon. One application of this will be sufficient to kill all the ants in the hill. If the ants are occupying holes in the trees the material may be squirted into the holes by the use of an ordinary oil can. After this has been done the hole should be stopped up with putty.

Samuel B. Green



Dairy Talks by the EMPIRE Dairy Maid—No. 10.

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The fact that it turns more easily—separating more milk with less hard work than any other—is proof that it will save you the most time and labor in turning.

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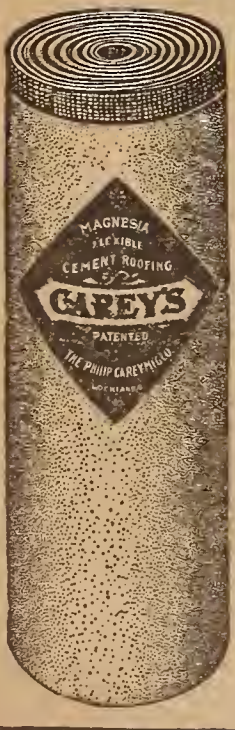
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## Live Stock and Dairy

### Oilmeal and Skim Milk a Bad Combination

**O**ILMEAL is quite generally accepted as a supplement to skim milk in feeding young calves; yet a careful consideration of its nature and essential element (nitrogen) will indicate that its acceptance for this purpose may very likely be founded upon wrong pre-suppositions.

Whole milk is the natural and ideal food for a calf; therefore, if any constituent be removed from such milk, its place should be filled by a substitute of the same nature, that is, by one well adapted to assume the functions of the element withdrawn. Butter fat is one of the most digestible of oily foods; but when taken into the blood oil is almost immediately oxidized and passed off as carbon dioxide and water, the breaking-up process being accompanied by a definite amount of heat and energy, not by positive growth. The economic value of fatty food in an animal body is that of generating heat; growth, of course, is indirectly promoted by an easy maintenance of temperature, yet growth in itself is almost entirely dependent upon nitrogenous foods, as proteids, commonly called protein by feeders. Of these nitrogenous foods oilmeal is one of the leaders very much in favor among dairymen.

The feeder who mixes oilmeal with skim milk for calf feeding is substituting a concentrated nitrogenous food for an almost exclusively oily element; this is manifestly opposed to the principle of natural balance in whole milk. Furthermore, both skim milk and oilmeal are already much unbalanced by a relatively great excess of nitrogen; their combination can only make the food the more objectionable on the same grounds. Colostrum—the first milk secreted by a cow after calving—is four times as rich in nitrogen as whole milk; the specific cathartic effect of this abnormal milk is generally conceded, yet when calves scour badly after the use of a similar ration made narrow by oilmeal, the feeder does not always attribute the bad effect to the improper balancing of the ration. The digestive juices of the alimentary canal are sufficient to change only moderate amounts of protein into digestible peptone; when abnormal quantities of these albuminous foods are taken, there is an excess above the amount which the normal flow of juices can act upon; this excess may pass off, but it is more liable to decompose slowly, establishing germ life and generating poisons in the intestinal tract. Scours in its primary stages is merely the natural method the intestines have of throwing off poisons that cannot be taken into the blood without evil consequences. By this use of too narrow and too large a ration well-disposed and generous feeders are liable themselves to impose unnatural conditions, the consequences of which they generally deplore as bad luck.

Oilmeal, to be sure, is rich in oil, and if it were practicable to add some of this oil as such without the accompanying nitrogen, it might prove advantageous. An occasional careful feeder practices the adding of flaxseed meal with good results; this meal, having had none of its oil extracted, is relatively rich in fat, and may be used in small quantities as a source of fat without having any radical effect in increasing the protein. But the price of flaxseed meal compared with the price of oilmeal is high, so that the ordinary feeder who is not acquainted with the relative values of these feeds for the particular purpose of calf feeding almost invariably uses oilmeal.

The practical substitute for butter fat in milk should be sought in a somewhat different class of foods; starchy foods being half as valuable as fat (an ounce of starch being compared to an ounce of fat) for producing heat, these are well adapted to balancing a skim-milk ration. Those who have balanced with cornmeal and ground oats have regarded the slight lowering of the fat content in the ration thus balanced as of little consequence, and much less to be deplored than the dangers of overfeeding on protein. The most conservative feeders mix nothing with skim milk, but feed all grain separate, as in this case the natural greediness of the calf for milk never causes it to take more solid and concentrated food than the system may demand.

Any substitute for butter fat during the first few days of a calf's life is liable to cause trouble, because the digestive juices of the newborn calf are lacking in the necessary ferment that changes starch to sugar. But by the time the calf has grown

old enough to eat ground grain all danger is past, for these ferments have developed and are ready to handle farinaceous foods and convert them into heat and bodily energy; from this point in the calf's development the lack of butter fat will make no practical difference.

The fact that scours and intestinal diseases in calves prevail almost entirely among good feeders seems further to impress the truth of the principle that over-feeding on protein is a potent cause; most other occasional and isolated cases of scours result from the feeding of milk or slops in a partially decomposed condition, or at a temperature such as to disturb or check the natural digestive functions. Either of these causes may result in establishing a chronic case, which may then set up an infection of scours from poisonous excrement voided by the affected animal; these conditions existing, no others need be present to bring about a general condition of infection. Germ life rendered active and propagated under one of the above-named abnormal conditions has been known to attack apparently normal digestive processes and terminate with equally fatal consequences. However, the spreading of scours once introduced is almost always facilitated by a general presence in relative degrees of those abnormal conditions that first caused the initial case of the disorder.

Although it may be observed, as above cited, that there is a possibility of a healthy herd on a proper ration contracting the infection from an aggravated case, yet this is not often the origin of the disease. It may be assumed with probability that the digestive tract of a calf, in normal condition and on a proper ration, likely has the faculty of counteracting the influence of these germs, even though actually introduced with food; in other words, the germs likely cause disease in only those cases presenting the abnormal conditions necessary to their propagation and action. When scours appear in any stable, efficient medication is advisable; greater or less disinfection should be effected according to the prevalence of the trouble; but really of first and essential importance in almost every case is a careful correction of the ration, with the end in view of removing the initial causes of the disease.

GEO. P. WILLIAMS.

### Treatment of Lousy Stock

A frequent cause of unthriftiness of farm stock, especially young animals, is that they are allowed to become badly infested with lice during the winter. In a recent bulletin of the Indiana Experiment Station, Dr. R. A. Craig gives the following simple remedies:

Good care during the winter will prevent the lice from doing a great deal of harm, and the simpler remedies, such as mercurial and sulphur ointment rubbed back of the horns or ears and along the mane and back, and insect powder dusted into the coat, may help in destroying them. A thorough treatment of the herd with dips or washes cannot be practiced during the winter months, unless the treated animals are prevented from catching cold. A favorable time to use this line of treatment is in the spring. A one or two per cent water solution of a tar disinfectant should be used. A convenient way to apply the remedy in the larger animals is with a spray pump, and in sheep and hogs by dipping. Whatever method is used, the coat and skin must be thoroughly wet with the solution. Proper care should be taken in mixing the remedy, as there is danger of making it too strong, and thereby irritating the skin.

After treating the herd, the stables, sheds, or sleeping quarters should be sprayed with about a two per cent water solution of the disinfectant, or whitewash may be used instead. This is necessary in order to prevent reinfesting the herd from the surroundings. If there is much litter around the yards and it cannot be gotten rid of, it is advisable to move the herd to other yards. Tar disinfectants in one or two per cent solutions do not destroy the eggs or nits, hence it is necessary to treat the animals again in ten days or two weeks.

Stockmen sometimes ask if the feeding of sulphur to lousy animals will not drive away or destroy lice. The feeding of small doses of sulphur will do no harm, neither will it help in getting rid of the lice, and it cannot be considered a remedy for this class of disorders when used in this way. Sulphur is effective, however, when used externally, and the addition of four ounces to every gallon of the tar disinfectant solution used, greatly increases the effectiveness of the remedy.



## Clover and Hogs

**F**IND that in winter hogs will do better and sows farrow more pigs if in connection with their corn ration they be fed some clover hay. It can be fed chopped or as it comes from the field.

I fed a sow and a few calves the past winter on clover hay, the sow having but six ears of corn a day besides the clover. February 16th she farrowed twelve fine pigs, and from the way they have started she seemed to have had plenty of nourishment for them during the gestation period, which she must have gotten from the clover, as she is a sow that would weigh about three hundred and fifty pounds. The amount of corn fed was not sufficient to raise that number of pigs.

I have plenty of salt where my pigs can help themselves. I never feed it in slop, as too much that way will cause trouble.

I believe clover is the best and cheapest feed for the sows in summer and winter, with a very small amount of grain. Too much grain will cause the sow to become too fat, and thereby lose the pigs at farrowing time.

H. O. M.

## Geese on the Farm

A flock of geese, well managed, will add a good sum to the farmer's yearly income. If there is plenty of grass and running water in the home pasture, they will do well and get most of their living in warm weather. They need care when young, but are easier to raise than turkeys, as they are domestic in their habits, coming home regularly at night if given a feed of corn.

There is always a good demand for feathers and down, for pillows and comforters, and a ready market for goslings during the holidays. Feathers sell for seventy-five cents a pound; and down, one dollar and twenty-five cents a pound, and sometimes a little more for an extra good quality, white being the preferred color.

The most desirable breeds are the Toulouse and Bremen. Mature birds will weigh from twenty to twenty-five pounds each. The goslings acquire flesh rapidly, and often weigh seventeen to eighteen pounds each by the middle of October. Both breeds are equally profitable, though some prefer the Bremen for the color of their feathers, which are pure white.

Geese do not agree well with other poultry and must have a separate house and yard, surrounded by a wire fence, with a gate to be closed at night, which is necessary to protect the flock from foxes and dogs. The goose house should be built so

meal, bread-crumbs soaked in milk, lettuce leaves, or a little finely chopped grass. Continue this feed until the wings begin to cross on their backs, when they may have corn and wheat.

When there is enough grass, the gander will take the flock to pasture, coming back at night for the feed of corn. The old birds may be plucked four times during warm weather; goslings once when they attain full plumage, afterward the feathers should be allowed to remain until they are killed for market.

When plucking, always leave the feathers on the back, those which support the wings, and part of the down on the breast. As the feathers must be fully grown or "ripe," when plucked it is not painful for the bird, and if allowed to remain would fall out and be lost.

A loose stocking with a hole in the toe for air is usually drawn over the goose's head when plucked to keep it still. Put the feathers in cotton bags, hang in the sun and shake well daily. E. N. MOORE.

## Improving Cows

If you are going to use your good dairy herd as a breeding herd also, that is, if it is your intention to use a pure-bred sire on your cows, with the purpose of increasing the number and improving the quality of them, assuredly you will study somewhat the matter of breeding away the undesirable points you may have in an otherwise very desirable cow; and of amplifying and intensifying her particular points of excellence. If one has a lot of cows with abnormally large or confoundedly small teats, or with unsightly and inconvenient udders, in selecting a male to mate with such cows he will want to choose one from a dam with a good-shaped, capacious udder and good teats. He will want also that the sire of the one he has chosen shall be from a cow carrying none of the objections he shall endeavor to breed away in his own herd.

In our herd improvement we will breed and feed for such size only, in the dairy cow, as shall enable her to perform the physical labors we put upon her. And in estimating or outlining the amount of this

work fairly well at a cost of about forty dollars. Corn and cob meal, in our experience, gives the best results when finely ground. This necessitates, very often, passing it through the machine twice and setting the burrs up closely the second time.

Corn and cob meal has given us about the same value, pound for pound, as pure cornmeal. The cobs have little, if any, nutritive value, it is true, but cornmeal is a heavy, concentrated food, and when fed in large quantities it is often not thoroughly digested and assimilated by live stock. The benefit from grinding the cobs with the meal is thought to be due to the lightening of the meal somewhat, enabling it to be completely digested and re-absorbed. Our experience briefly summed up is about as follows: A bushel of corn and cobs weighs seventy pounds; a bushel of corn fifty-six pounds. By grinding the corn and cob, therefore, we have added practically one-fifth to the feeding value of a bushel of cornmeal. This is an item to be carefully considered in all sections where corn is high priced.

The professional feeder in a public test will exploit his skill at his job and describe his work with great particularity, almost convincing us that his ability and not the cow's had brought about results. Any careful man with good cows and all the feeds of commerce at his hand can make the cows do well, but the good farmer feeder is more interested in the skill or horse sense that sells the crude growth of the fields to the cows at a good profit, and at the same time stimulates and keeps unimpaired the breeding ability of the animals. Cows grow old, meet with accidents and lose their places in the herd's usefulness. Changes should be progressive in quality; the good milk cow should be also a good breeding cow not that we will ask her to give us twins, but give us daughters superior to herself. W. F. McSPARRAN.

## Corn and Cob Meal

Prof. A. M. Soule, in the "Practical Farmer," concisely gives his experience in feeding corn and cob meal.

We have fed corn and cob meal to several classes of stock with good satisfaction during recent years. If corn is cheap, say less than forty cents a bushel, it will hardly pay to grind it, but when it gets over fifty cents a bushel, it seems to us that grinding the corn with the cob is profitable, particularly as a machine can be purchased that will do this

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that the door and windows face the south. Each goose should have a barrel laid on its side for a nest. Cover the bottom with a layer of freshly cut sod, put in hay and supply a nest egg.

One gander is enough for four or five geese. Laying begins about the middle of March. As they are sometimes quarrelsome and fight for nests, it is well to give good care at this time. Movable slat doors for each barrel prevent crowding and keep the geese quiet. As the eggs are easily chilled on cold days they should be brought in and placed in a box of cotton.

When a goose wants to sit, give her as many eggs as she can cover, and place food and water near. A goose sits about four weeks, leaving the nest for a short time each day for exercise and food. While she is off the nest, sprinkle eggs with water to prevent the shells from becoming too hard and dry for the goslings to break through.

After the goslings are hatched and able to leave the nest, feed them with Indian

physical labor we will remember that, unlike the poet's "man with the hoe," she is not "brother to the ox," but his sister, and that upon her in no strenuous physical sense rests the yoke or the burden of the ox. Her obligations are the gentler, more refined ones of maternity. She is not a hewer of wood and a drawer of water. Her vigor and vitality are not to be expended plowing the furrow, tilling the land, harvesting the crop, she needs no such exacting exercise, no such development of bone and muscle. She should not be the producer of the raw material on the farm nor its harvester. She is the changer of the crude material into the highest quality of finished food products—truly one of nature's greatest wonders is the work of the cow! In our breeding, therefore, we will want to produce a cow of robust health, without in the least unnecessary degree sacrificing her femininity. We will try to more encourage and stimulate her ability to consume, digest and assimilate the products of our fields

work fairly well at a cost of about forty dollars. Corn and cob meal, in our experience, gives the best results when finely ground. This necessitates, very often, passing it through the machine twice and setting the burrs up closely the second time.

Corn and cob meal has given us about the same value, pound for pound, as pure cornmeal. The cobs have little, if any, nutritive value, it is true, but cornmeal is a heavy, concentrated food, and when fed in large quantities it is often not thoroughly digested and assimilated by live stock. The benefit from grinding the cobs with the meal is thought to be due to the lightening of the meal somewhat, enabling it to be completely digested and re-absorbed. Our experience briefly summed up is about as follows: A bushel of corn and cobs weighs seventy pounds; a bushel of corn fifty-six pounds. By grinding the corn and cob, therefore, we have added practically one-fifth to the feeding value of a bushel of cornmeal. This is an item to be carefully considered in all sections where corn is high priced.

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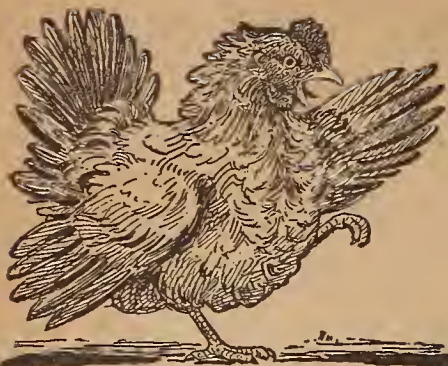
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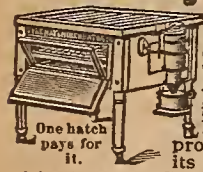
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## Poultry Raising

By P. H. JACOBS

### Early Broods

THE best and most vigorous chicks are those hatched early, as they thrive better than those hatched late in the season. While the late chicks have warmer weather and a greater variety of food in their favor, those hatched early are less liable to disease, and are also in less danger of succumbing to lice. They will begin to lay early in the fall, while those hatched late in summer will not lay until the following spring, the former laying a number of eggs before cold weather sets in, and commencing to lay again early in the spring or late winter.

The foundation of success with young chicks is to select the eggs from which they are to be produced. The strongest chicks are always produced from vigorous parents. In setting the hens it is customary to use eggs from any source whence they can be produced, but the result is always a mixed lot of chicks, some weak, some strong, some large, some small, no uniformity existing among them in any respect. It is very important to use eggs only from stock that is healthy, strong and vigorous. If attention is given to this matter there will be smaller loss among the breeds, and a larger proportion of chicks will result. Endeavor always to secure eggs that are fresh, but let them be from healthy stock. A little care at the beginning may prevent many annoyances in caring for the young chicks.

### Wasting Time with Diseases

When contagious diseases appear in a flock of fowls there is entailed upon the farmer a heavy loss of time in attempting to cure them. Cases are known where the owners of fowls have devoted weeks to handling them, the birds not really being worth the cost of the cure, even if success is the result. Roup is a disease that may remain for months, some forms being regarded as incurable as tuberculosis. Scrofula is also liable to occur as a disease in a flock, and to permit such birds to exist is to incur the liability of having the disease transmitted to succeeding generations as well as become contagious. It is cheaper and better to obtain other fowls, first destroying those in the yard. When tumors appear they indicate a diseased condition of the fowls, which places them outside of the uses of the farmer. Tumors, warts, sores and other affections of the skin are as peculiar to fowls as they are to some human individuals, and come from the same causes, being also as difficult to cure. Even if cures are effected it is seldom that the birds will ever again prove satisfactory. Sometimes one is tempted to save a valuable pure-bred fowl, if possible, but it is wasted time and labor, as well as disagreeable, to handle birds that sell by the pound in market.

### Dry Picking

Considering the labor bestowed, dry-picked fowls are really worth more than those that are scalded. The object should be to remove not only the entire feather covering of the bird, but also to clean the carcass of all pinfeathers. Clean picking is everything in giving an attractive appearance to a bird, and although it takes a little more time and work, the increased price per pound should pay for the extra trouble. Labor pays sometimes, even in the preparation of poultry for market.

### Gapes

It is nearly time for our annual crop of inquiries for remedies regarding gapes in young chicks, and it is not out of place to take up the matter now. The scourge of chicks, known as "gapes," is a difficulty that is due to the clogging of the windpipe by a cluster of threadlike worms. How they get into the windpipe of the chicks has not been definitely determined, but it is believed that they (or their eggs) are picked up by the chicks from the ground. The same conditions that serve earthworms seem to be suitable for gape-worms—a rich, damp, or shaded soil. Hence old farms upon which fowls have run for years are most affected with the eggs of gape-worms.

The main remedy, known for a century or more, is to draw the gape-worms from the windpipe with the tuft of a feather, a

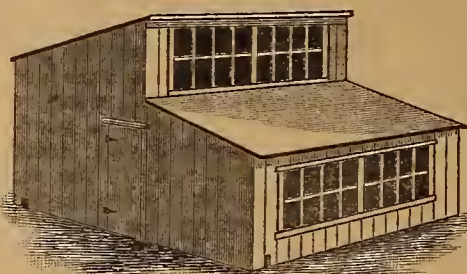


straw, or even a horse-hair loop, but such method is slow, and inexperienced persons do not always succeed, to say nothing of the time and labor required for assisting a large number of chicks. One plan is to place the chicks in a box and dust fine air-slaked lime over them, so as to compel them to inhale the lime, which dislodges the worms. Another remedy is to give each chick one drop of a mixture of turpentine and camphor, on a breadcrumb.

The best preventive is to use air-slaked lime plentifully; scatter it freely over the ground occupied by the chicks, and keep all of the surroundings clean. In a quart of cornmeal mix a teaspoonful of spirits of turpentine, and moisten the mixture with enough water to form a crumbly dough. Feed this to the chicks on the first appearance of gapes, and if it does not effect a cure it will probably prevent the spread of the difficulty. At the same time always look for the large lice on the heads and necks of the chicks, as lice sometimes cause the chicks to gasp. Feed on boards or clean surfaces, and keep the chicks on ground that is free from filth.

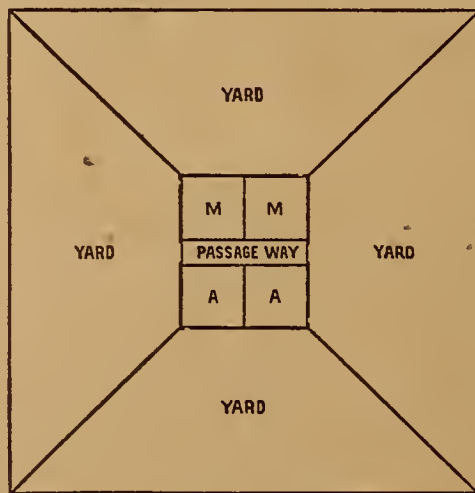
### Poultry House with Four Apartments

The plan of poultry house given is one that permits of the sun's rays entering each apartment, the upper windows being of sufficient height to allow light and warmth on the apartments M M, and the lower windows performing the same service for apartments A A. A feature in the



POULTRY HOUSE WITH FOUR APARTMENTS

arrangement of the yards is that portions of each yard receive warmth from the direct rays of the sun during nearly the whole of the day. The house may be of any preferred size. For sixty fowls the dimensions can be twenty by twenty-four feet, which gives a passageway four feet wide, each apartment being ten by ten



PLAN OF YARDS

feet, with fifteen birds in an apartment. The yards should be as large as possible, not less than 1,500 square feet to each. The windows may be arranged so as to open and shut, if desired. The roof should be covered with roofing paper. The divisions of the interior and the yards should be of wire netting.

### Fowls in Confinement

The greatest difficulty in keeping fowls in yards is the filth that accumulates, and the larger the flock and smaller the inclosure, the more serious the drawback. The only way in which the yards can be kept clean is by spading them, or scraping the surface in winter, when spading is impossible. When a yard is spaded or plowed it affords the greatest pleasure to fowls. They highly enjoy fresh earth at all seasons, and it should be supplied them. If it is placed in a yard a piece of sod should be preferred, as the fowls will then be able to secure green food as well as fresh earth at one and the same time. If supplied with fresh earth, in confinement, by spading up a little of the yard within their inclosure each day or two, the way the birds will set to and scratch it over will be convincing proof that they like it. This is well enough the first year, and during

the summer, or when the ground is not frozen, but when quite a large flock of fowls is kept in a comparatively small space the soil becomes so impregnated with manure as to be unfit for spading over for the birds the second or third years, and in this case one should make a new yard. If convenient, changeable yards should be used, growing green food in one while the fowls have the other, which may be alternately occupied, but little additional expense being necessary except the extra fence and ground.

### Spray Mixtures for Lice

While the kerosene emulsion is considered excellent and cheap for the spraying of the poultry house, in order to keep down lice, it does not always prove efficacious, as some readers have found it lacking in accomplishing the object desired.

Better results have been obtained when a gill of crude carbolic acid was added to each gallon of the mixture before diluting with water. It will probably be cheaper and better to use the advertised lice killers, as they are ready prepared and never fail, but if readers prefer homemade remedies, then the kerosene emulsion is probably equal to any, but the suggestion of the crude carbolic acid should not be overlooked. Do not use the refined article, as it is more expensive. It is probable that some of the failures with kerosene may be due to imperfect mixing, or poor work in spraying, as it is considered destructive to all kinds of lice, but as it may be best to be on the safe side, add the carbolic acid, following the directions usually given for the application of kerosene emulsion.

### Buying Large Numbers

At this season of the year it is a difficult undertaking to buy a large number of fowls on a single farm, as the undesirable kinds are usually marketed. If the beginner goes to the open markets in the cities to buy fowls, or even procures them in his neighborhood, he incurs the risk of failure, for when he procures them from a great many places he brings on his farm roup, lice, consumption, scrofula, egg-eaters, feather-pullers, and every other drawback at one operation, as well as receiving the refuse of other farms. If one undertakes to keep poultry in large numbers, he should have the patience to take time, and hatch his hens from selected breeds. It is a slower process, but much safer and surer.

### Bowel Disease

At this season, as the weather becomes warmer, many complaints relate to diarrhea among the flocks, in some cases no alarming symptoms showing. As readers seldom give details of feeding, etc., it is difficult to suggest suitable remedies. There are several causes, among them being that the fowls eat too much young and succulent grass, especially in the South, the remedy being to keep them off the grass, allowing them to run at large for only a short period during the day, gradually extending the time as grass becomes of larger growth. Another cause is that the hens in some flocks are excessively fat, being fed too frequently, and allowed too much, especially of grain. The remedy is to feed but once a day, and give no food at all as soon as they can secure a sufficiency on the grass plot, or in the orchard. No medicine is necessary; regulate the feeding and keep the hens busy.

### Ducks and Their Quarters

The quarters in which the ducks are kept should be dry, and filth is injurious to them. The floor should be well littered with straw or leaves. The weak place on the duck's body is the foot, and it may seem strange to some to be informed that while ducks can remain on the water of a pond all day, yet when they are kept in a damp place at night they become apparently rheumatic, and soon have leg weakness. Nothing conduces more to the thrift of ducks than dry quarters, and leaves, cut straw, chaff, refuse hay, or anything of the kind will answer, on the floor. When given comfortable quarters they will be free from disease and lay more regularly.

### Feeding Bone

In reply to readers, it may be mentioned that cut bone is an excellent addition to the ration for laying hens, and the question arises how much to give each hen. The hens should be allowed an ounce each, and that quantity will be found sufficient for them once a day. Dry bone may be placed in a box and placed under shelter, so as to permit the hens to eat it at will, as it will answer the purpose of grit as well as serve the birds as a food.

*P. H. Jacobs.*



## The Grange

### Two Good Laws

**T**HE Ohio School Improvement Federation secured two of the best laws enacted by the last General Assembly of Ohio. Both were drawn by Superintendent S. K. Mardis, one of the most zealous school men in the state, liberal, unselfish, self-sacrificing. The bills were introduced by Senator Duval, and ably carried through both houses. One provides for removing the election of members of school boards from the baneful influence of partisan politics. The names of all candidates for members of the school boards shall be printed on a ballot entirely separate and distinct from any other ballot, and without any party emblem or any designation save the names of the candidates. The number to be elected is to be printed.

"The whole number of ballots to be printed for the school district shall be divided by the number of candidates for member of board of education of the school district, and the quotient so obtained shall be the number of ballots in each series of ballots to be printed as follows: The names of candidates shall be arranged in alphabetical order and the first series of ballots printed. Then the first name shall be printed last and the next series printed, and so shall the process be repeated until each name shall have been first. These ballots shall then be combined in tablets with no two of the same order of names together except when there is but one candidate."

This is the best plan for removing elections from politics yet devised. It also gives each candidate an equal chance by being placed in the same position on the ticket that others have been placed. It prevents any person or persons from directing illiterate voters by number or position on the ticket.

If the School Improvement Federation never did another thing this one law would justify its existence.

The other law provides a minimum wage of forty dollars per month for teachers, and if the levy in a district shall not furnish funds for this amount for an eight-months' term, the state shall provide it. This is aimed to help weak districts. Along with this is required, after 1910, professional training for teachers—a high-school course and one year in a normal or training school, or one year's experience as a teacher.

"The inadequate salaries paid teachers of this country are driving the teachers from the schools by the thousands. For years, servant girls were underpaid and treated almost like slaves in many homes. They were deprived of the privileges justly belonging to them. We all know full well the result of this unwise and unjust policy. The teacher problem is running exactly the same course, and if salaries and general appreciation of teachers do not increase soon teachers cannot be procured at any price. We should protect our schools before it is too late."

Not only is this a step toward the state protecting itself from incompetent teachers, but it is an incentive to the brightest minds of the country to remain in the work when it is treated as a profession. Just as long as an inefficient teacher receives the same low pay as an efficient one gets, there will be an exodus from the ranks of teachers.

They are splendid laws, and great credit is due Professor Mardis and the School Improvement Federation for securing this advanced legislation.

### Initiative and Referendum

"We believe in representative government, and that the people are competent to elect competent representatives."—New York Sun.

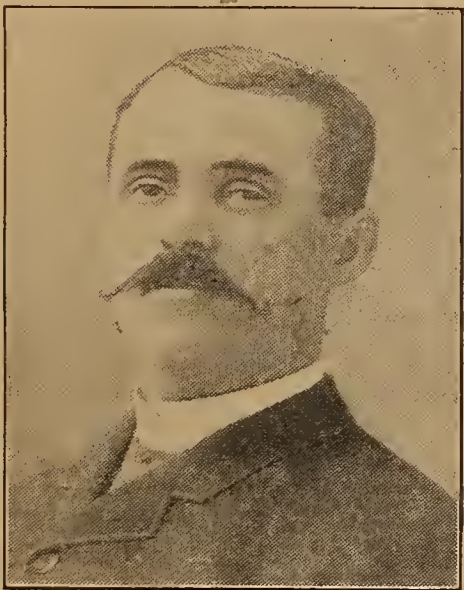
"Representative government is the thing to stand by, and to make it worthy the representative must be honest and intelligent. What has given the initiative and referendum idea an impulse is the unfaithfulness of the representative. Every vote for an extravagant salary, every support of a private job, every defence of a scheme of graft, every connivance of bossism and monopoly, every collusion among projectors of local and personal measures to help

each other—in fact, every act not in accord with intelligent public desire, and every influence that is not representative of the interests of all the people is an argument for the initiative and referendum.

"There is a certain phase of absurdity in trying to have legislation attended to by the people directly, on the ground that their representatives prove false. Will not the same fault prevail in voting upon measures as in selecting representatives; and is not the room for a mistake and abuse just as wide? The situation puts this duty on the people—to reject every man, of any party, who has proved recreant to the people. The 'cause of the people' is no meaningless phrase. Some legislators think it is when they barter private jobs with each other, and sow in lavishness the seeds of corruption. The representative system is right if the people are true to themselves, and no system can stamp upon any other basis."—E. S. WILSON.

### Ohio's New Secretary of Agriculture

The State Board of Agriculture followed its usual custom of electing one of its own members as secretary, and raised T. J. Calvert, of Clark County, to this responsible position. He will have a difficult place to fill. W. W. Miller was recognized throughout the entire country as a genius in organization and direction of men and capital. He directed the energies of several hundred men and women in different capacities at various seasons of the year, and administered property worth



millions of dollars. He grew with the growth of the work. The new secretary enters upon this great place with the best wishes of Ohio. All will pull together to encourage, sustain and support him in his great field of endeavor. Mr. Calvert has the confidence and esteem of those who know him. The salary is \$2,500.

At the same meeting that Mr. Calvert was elected secretary, the board reestablished the position of assistant secretary, and elected J. W. Fleming, who has been in the office several years, to the place. His salary was placed at \$1,500.

### The Observatory

The people have just as much economical and honest expenditure of public funds as they are willing to exercise themselves to get.

Ohio Senate voted itself the chairs and desks of the Senate chamber. A tacit understanding prevailed to leave the State House otherwise intact. For this much, thanks.

Whether it is better to obey the tax laws of the state and furnish funds for a lot of grafters and hangers-on, for commissions galore, for questionable expenditures, or conceal all possible property from the tax gatherer, has ceased to puzzle many people. They choose the latter.

If people only knew how much better roads, schools and public conveniences they could have with the present public funds they would at once seek less waste. Every mud road is a monument to extravagance of public officials and private apathy. One is as blameworthy as the other.

*Mary E. Lee*

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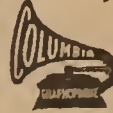
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### The Cause of Earthquake

ACCORDING to the scientific explanation of Dr. G. F. Becker, chief of the division of physical researches of the United States Geological Survey, who lived many years in California, and who made a special study of seismological disturbances, the late and disastrous quake in California had no relation to the recent eruptions of Vesuvius. He ascribes the "shake" to an unusually acute development in the process of what he terms "faulting," which has been going on along the Pacific coast for thousands of years. This process consists of a readjustment of the rocks forming the crust of the earth.

California is a chronic sufferer from earthquakes in mild form, he says, but the severity of the recent "shake" was due, in his opinion, to the fact that there had been a suspension of the shakes in recent years, and consequently the disturbance was due to an accumulation; or, in other words, a greater amount of earth shifted, or "faulted," than ever before.

"The people of California," said Dr. Becker, "have not been having their usual monthly 'shakes' recently, and so this time they got them in a lump. The case might be likened to that of a man suffering with fever, whose regular attack of chills in a mild form had perhaps been postponed for a long time and then the disease shook him all at once in aggravated form."

The coast line of the Pacific has been rising for a thousand years. This is shown by the geologic formation on the coast, old beaches being found high upon the cliffs where the sea evidently at one time washed. There is a peculiar geologic mark to be noted also in the traces of a fish known popularly as the "date-fish," which burrows into the beaches. The holes made by these fish are found high up on the cliffs, showing that the coast has gradually risen above the sea. Along the coast of California, at a relatively short distance from the shore, the shoal water suddenly becomes very deep, and from a depth of a few fathoms changes abruptly to a depth of perhaps thousands of fathoms. This great submarine cliff extends all the way to Chile, the same geologic formation being noted generally. Continuing the examinations still more, we find that this same general formation extends to Japan. Actually it may be described as a great line of uplift in the earth's surface extending all the way from Singapore around to Valparaiso.

The worst shock felt in San Francisco prior to the present one was on March 30, 1898. The earthquake was felt mostly at the Mare Island Navy Yard, Vallejo and Benicia. At the navy yard the damage done was about \$342,000.

The last great earthquake in the United States was that of Charleston, S. C., in 1886. This earthquake was preceded by minor tremors, to which little attention was paid. The principal shock occupied about one minute and other shocks followed at intervals with gradually diminishing violence. At the end of four weeks they had ceased to be destructive, but tremors were occasionally observed for several months longer.

In Charleston the movements were less violent than at the center of the disturbances, a point fifteen miles west of the city. A large number of houses in the city were thrown down, and nearly all the buildings in the city were more or less damaged. The damage was computed at \$8,000,000. Twenty-seven persons were killed outright, and others died afterward from injuries received.

Following is a list of the most destructive earthquakes of the last two centuries:

Date.	Place.	No killed.
1703..	Yeddo, Japan.....	190,000
1716..	Algiers, Algeria.....	18,000
1726..	Palermo, Italy.....	6,000
1731..	Peking, China.....	95,000
1746..	Lima, Peru.....	18,000
1754..	Cairo, Egypt.....	40,000
1755..	Lisbon, Portugal.....	35,000
1773..	Guatemala, Cent'l America.	33,000
1797..	Quito, Ecuador.....	41,000
1822..	Aleppo, Turkey.....	22,000
1861..	Mendoza, Argentina.....	12,000
1868..	Arica, Chile.....	6,000
1880..	Manila, Philippine Islands.	3,000
1883..	Ischia, Italy.....	2,000

### First "Lord" in America

NEW ENGLAND had many peculiar characters in the early days of her existence. Indeed, it has some still, and so have other parts of our country, for the "peculiar" person is ever abroad in the land. One of the most famous of the odd characters in the New England of more than a century ago was "Lord" Timothy Dexter, whose great mansion may still be seen in Newburyport, Massachusetts.

It is doubtful if New England ever contained within her confines a more eccentric person than was this same "Lord" Dexter, who was a curious compound of



## Around the Fireside

colossal conceit, shrewdness, silliness and vulgarity when it came to ostentatious display. His own account of his birth given in his strange book entitled "A Pickle for the Knowing Ones," has an illustration of his conceit, for he says: "I was born (in Malden, Mass.) January 22, 1746; on this day in the morning, a great snow storm in the signs of the seventh house; whilst Mars came forward, Jupiter stood by to hold the candle. I was to be a great man." The "greatness" that was thus thrust upon him by the conditions of his birth he



THE REV. WILLIAM BOOTH

Commander-in-Chief of the Salvation Army, now in his 76th year, but still actively engaged in the great work of saving souls in London, England

thrust upon others in a way that was somewhat amusing, and sometimes disgusting in his later years.

Leaving Malden he went to the old town of Newburyport, in Massachusetts, where he lived until the time of his death. Here he married a prosperous widow some years older than himself, and her money gave him a "start" in business. That he was shrewd enough to make the most of. Then he purchased a number of public securities supposed by many to be a poor investment, but a sudden and unexpected rise in their value made Timothy Dexter a man of large wealth for those days, and it was then that he gave himself the title of "Lord" Dexter, and

town for this reason. He had something like forty statues of famous people placed on high columns in a semi-circle in the large and fine grounds in front of his house. His vanity must have reached a climax in this adornment of his grounds, for among the statues of Washington, Adams, Jefferson, Franklin, Lord Nelson, William Pitt and Bonaparte, "Lord" Dexter placed a statue of himself and on it was this modest inscription: "I am the first in the East, the first in the West, and the greatest philosopher in the Western world." Hundreds of people visited Newburyport to see "Lord" Dexter's grounds and statues, and as most of them had to cross a toll-bridge owned by a company of which "Lord" Dexter was the largest shareholder, visitors contributed to his income when they came to see his statues.

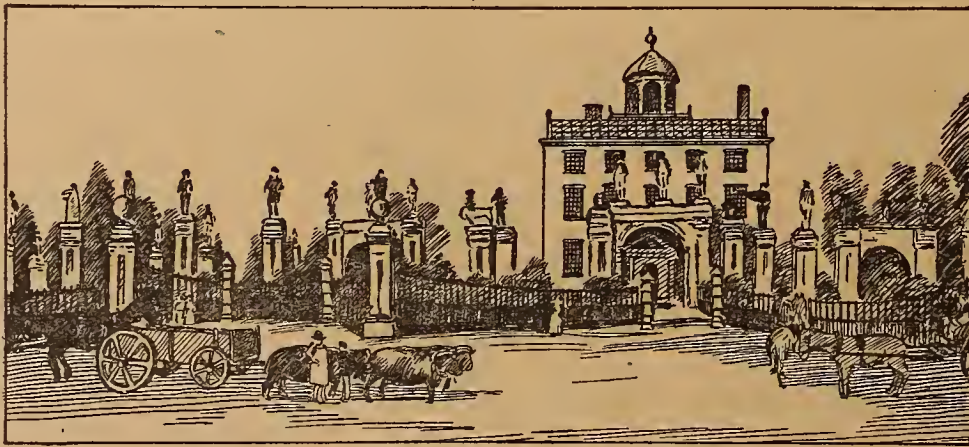
None of these statues are now standing, but the house is still in Newburyport. In the time of "Lord" Dexter the house had great gilt balls on its minarets, and a huge gilt eagle with outstretched wings surmounted the cupola.

Not content with all this show of his greatness "Lord" Dexter paid people for writing poems in his praise, and it is said that the following quatrain gave him great pleasure:

Lord Dexter is a man of fame,  
Most celebrated is his name;  
More precious far than gold that's pure,  
Lord Dexter, live for evermore.

Some of his business ventures that people ridiculed and that seemed to invite financial disaster turned out wonderfully well. There was much amusement when "Lord" Dexter bought forty-two thousand warming-pans and shipped them to the West Indies, but the natives of that great sugar-producing country purchased the entire stock for sap ladles and "Lord" Dexter made a handsome profit on them. Other of his business ventures that seemed against all reason turned out wonderfully well, and his riches increased. So did his vanity and his aping of royalty. He had a coach and four with a coat of arms on the coach. Four cream-colored horses drew the coach around the beautiful streets of Newburyport, and it was a source of indignation to "Lord" Dexter because the people of the town did not bow the knee to him.

"Lord" Dexter posed also as a man of great literary accomplishments, but his writings still extant prove that he was really illiterate. He could not spell words of three letters correctly, and a most amusing thing about a small pamphlet he wrote was that it had not a single punctuation mark in it, excepting on the last page, on which there is nothing but punctuation points. The author says that peo-



HOME OF ECCENTRIC TIMOTHY DEXTER AS IT APPEARED AT NEWBURYPORT, MASS.

Upwards of forty statues of famous people, mounted on high columns, were placed in a semi-circle in the large and beautiful grounds in front of his house, and among the statues Dexter placed one of himself, and had inscribed upon it, "I am the first in the East, the first in the West, and the greatest philosopher in the western world"

affected the manners of royalty in the most pronounced way. Fond of display, he purchased a fine mansion in Newburyport and set up a "country seat" in Chester, New Hampshire, and gave to himself another title, that of "King of Chester." His manners were so overbearing in Chester that the people ridiculed him to his face. We would call it "guying" him in our day, and the King of Chester was so disgusted by this conduct on the part of those he would have had his humble subjects that he left Chester and remained permanently in Newburyport. His great house and grounds soon became by all odds the greatest "show place" of the

ple complained because of the lack of "stops" in a book he had previously written, and adds that he had put in "A Nuf" in the second book and that his readers may "peper and solt" the book to suit themselves. This added more to the hilarity than to the intelligence of his readers. The book is a senseless production of no literary value whatever, and such a jumble that a reader of our day would be puzzled to "make sense" of any dozen lines of it.

He erected a showy summer house in his garden and made a tomb for his final resting place under the summer house. Referring to this in his book called "A

Pickle for the Knowing Ones," he says: "Heare will lie in a box the first Lord in Americake the first Lord Dexter made by the voice of Hampshire state my brave fellows Affirmed it they give me the titel and so let it go for as much as it will fetch." The entire absence of punctuation marks made it difficult to read his book. The folly of this bundle of conceit reached a climax almost appalling when he had a superb coffin made for himself and invited his friends to attend his mock funeral. The empty coffin was laid in the tomb and at the close of the services all the guests were regaled with wines and rich food. Most ludicrous of all, "Lord" Dexter attempted to chastise his wife for not weeping at the mock ceremonies, and some of the guests had to interfere to save her from a sound drubbing for her lack of feeling. This strange character became a victim of intemperance, which had a good deal to do with his demise at the comparatively early age of sixty years. It should be recorded to his credit that he was generous to the poor during his life, and that he left a part of his property to charity. All that is mortal of "Lord" Timothy Dexter lies in the old Newburyport burying-ground, for the town authorities would not allow his body to be placed in the tomb he had prepared for it. He was a believer in the transmigration of souls at times, and at other times he declared himself to be a deist. He died on the 22nd of October, in the year 1806.

FELIX FAXON.

### Decoration Day

IT WAS in the year 1868 that Decoration or Memorial Day had its origin. In the early part of May of that year N. P. Chipman, then Adjutant General of the United States Army, conferred with John A. Logan, the National Commander of the Grand Army of the Republic, concerning the matter of having the G. A. R. inaugurate the custom of laying flowers on the graves of soldiers who fell during the Civil War.

General Logan immediately issued an order in which he named May 30, 1868, as a day on which all members of the G. A. R. should repair to the cemeteries in the towns in which they lived and there spread flowers on the graves of their dead comrades.

Though, strictly speaking, Decoration Day is not a national holiday, it is recognized as a legal holiday in most of the states.

### The Haywood-Moyer-Pettibone Trial

THE trial of William D. Haywood, Charles H. Moyer and George A. Pettibone, leaders in the Western Federation of Miners, who, with others, are charged with conspiracy in connection with the murder of Ex-Governor Steunenburg, of Idaho, is assigned for May 15. It is the hope of an interested people that these men be given a fair and impartial trial. If innocent, prompt liberation should be made, but if guilty, speedy and full punishment should follow. These men declare their innocence, and it ought to take considerable more than the oath of the self-confessed murderer, Harry Orchard, to convict them. The eyes of many millions of people are upon this trial. May right prevail.

### General Booth's Work in England

GEORGE HERRING, a well-known millionaire philanthropist of London, has placed the sum of \$500,000 at the service of General Booth, of the Salvation Army, for home colonization, says William E. Curtis in the "Chicago Record-Herald." General Booth has been agitating the emigration plan to relieve the congestion among the submerged millions of London. He has been pleading for money to send worthy families to Australia, Canada and the United States and set them up on farms, and has already accomplished a good deal in that way. No part of the rescue work of the Salvation Army has been more effective or has accomplished more permanent, practical good, and it has had the approval of King Edward, Queen Alexandra and other influential personages who take great interest in the Salvation Army. Did it ever occur to you that General Booth has made most extraordinary advances in the confidence and respect of the people of the world? Not many years ago his people were arrested on the streets for disturbing the peace, and even now the Archbishop of Canterbury and other members of the hierarchy of the Church of England frown upon his unorthodox methods for converting the sinners and comforting the poor and afflicted. But the public at large, not only in England, but all over the world, recognize in the Salvation Army an agency for usefulness unequalled by any other charitable organization, and they back their confidence by large gifts. The disbursements of General Booth and his officers run up into the millions annually.



## Before the Wedding Day

THE mother of a large family was giving her views on the bringing up of children when the sewing circle met at her home, and vigorously denounced a city friend who allowed her daughter to get married without knowing how to make bread. "None of my girls went to homes of their own before they knew how to cook," she said proudly. "I believe in bringing children up in the good old-fashioned way."

"Yes, but cooking is only one of a dozen things girls should know before they get married," observed a lady at her right. "It seems to me girls should know many other important branches of knowledge too. Take the subject of health for example. A great many girls get married without knowing the alphabet of taking care of their own health or—"

"This health business is all a fad," interrupted the hostess. "It comes natural for girls to know how to run a house and take care of children after a few years. Of course they make mistakes but I believe in putting them upon their own responsibilities. I have no patience with all the books



## The Housewife

dies and duties of a wife and mother are worth more to the prospective bride than a knowledge of music and embroidery. By all means have the music to cheer your home if you can, but have the homely accomplishments also. Get a simple, sensible book on hygiene and study up. You will find pleasure and profit if you choose the right volume.

HILDA RICHMOND.

## Medallions in Broderie Anglaise

THE use of medallions or insets as decorative features on lingerie and household linens generally seems to increase in

manner, and, indeed, it is difficult to think of a place where trimmings are desirable to which these little articles are not appropriate.

The illustrations show four designs of various sizes and shapes. The large medallion is two and three fourths inches in diameter, while the others are about two inches. These are to be carried out in broderie Anglaise or eyelet work, that one-time fad of our grandmothers. They are first outlined rather heavily with padding cotton and are then ready for the embroidery proper. The outer edges are buttonholed closely. The eyelets are punched with a stiletto or other sharp-pointed, round instrument, and the ovals slit lengthwise with sharply pointed scissors before overcasting them. Only one should be cut at a time, for if left open and unworked they are liable to pull out of shape. The overcasting must be neatly and evenly done to insure good results. The raw edges of the linen are rolled under in this process, and the work thus made particularly durable. Many heirlooms are found of similar work done several generations ago which have withstood a great amount of laundering and general wear and tear because of the carefully worked edges. The old saying of our copy-book days, "Whatever is worth doing at all is worth doing well," certainly applies to eyelet work, as well as every other style of needlework.

After the medallions are ready to be applied to the article they were made for they are basted into position, the arrangement being left to the taste of the worker, and are then whipped onto the fabric with fine thread, as nearly invisibly as possible. Now turn to the wrong side and cut away the background material from under the medallion, leaving just a seam's width around the edge. This is then turned back and caught down securely on the wrong side.

Instead of buttonholed edges these medallions are frequently left plain, and when basted into place the edge is turned under, care being exercised to preserve the desired outline accurately, and a row of feather-stitching in the embroidery cotton is worked around to hold the hem down. The back is cut away, as before suggested.

Lace edgings are also utilized around medallions, and are especially charming for use on lingerie hats or linen parasols.

thread which is found on the straight edge of almost all laces nowadays, and whip it to the medallion. If desired insertion may be placed next the medallion and lace outside of that, but the same rule for doing the work applies in either case. Valenciennes lace gives the most delicate effect.

Aside from the eyelet work one sees French laid embroidery, Hedebo, solid disks and French knots, as well as the feather and herringbone stitches in these medallions, so that one may select almost any style and still be correct. In the illustrations solid work could be substituted for the cut disks and ovals, or part of them, if liked. The little trefoils and straight lines in Nos. 1 and 2 are merely outlined.

MAE Y. MAHAFFY.

## Infant's Crocheted Cap

THIS little cap is made of cream crochet cotton, silk finish. A pure silk thread may be used if desired. The roll stitch used in making the wheels is made thus: Hold the thread between thumb and forefinger of left hand, and with a whirling motion of the hook wrap thread around



INFANT'S CROCHETED CAP

twelve times (twelve "overs"), holding it in place with middle finger of right hand—do not wind it tightly—then insert hook under foundation ch, draw thread through, then pick up thread and draw through all on the hook, ch 1, leave a short length of thread at back of "overs." It will

take a little practice to do this easily.

Begin the crown with 8 ch, join, ch 3, then 12 rolls of 12 overs each in this ring of 8 ch; fasten with sc in top of first roll. A picot of 5 ch between each roll with 1 ch between. Work in sc to center of 5 ch, then 2 loop or knot tc, sc in center of next 5 ch, repeat all around.

Ch 4, sc in center, knot all around. Ch 3, \* 3 rolls over every 4 ch; repeat from \*. A picot of 7 ch between every roll with 1 ch between. Ch 2, sc in center of 7 ch; repeat. A row of the loops tc as previously described, sc in every 4th st. This completes the crown.

A wheel with picots of 5 ch like one in center of crown. Join 9 of these wheels at center of 2 picots. On both sides of this strip (work always on the right side and break thread), beginning at 4th picot from joining, ch 2, sc in next picot, repeat, only between the wheels make 4 ch. Begin at 1st sc, \* a picot of 7 ch, ch 2, miss 2 sts, sc in next st, repeat across, making 41 picots. On these picots, on one side only, sc in picot, ch 2, sc in next picot.

Make another row of wheels, repeating this edge on one side only, not omitting the last 2 ch, sc between picots. With thread in 1st picot of 1st row, make a loop, join to 2d picot of 2d row, another loop, join to 5th st of 1st row, a loop, join to 1st picot on back of front and join the crown, leaving 2 picots for lower edge of cap, ch 2, join to center knot of loops, join next picot \* ch 4, join to next knot, also to next picot, ch 2, join next picot, ch 2, join to next knot, also next picot; repeat from \* until the 5th wheel is to next picot, ch 2, to next knot, also next reached, then join a picot after every 2 sts, thus increasing the fullness on the top. Continue around, when the front will meet, or nearly so.

Begin in picot of wheel at lower front edge of cap, ch 2, sc in next picot, ch 2, tc over next picot, ch 2, tc in row of 2 ch, tc in end of next 2 ch, and repeat across the bottom, keeping the work smooth, with same number of 2 ch on either side of center. Work across again, sc in 1st picot; picot of 5 ch, ch 2, miss 2, sc and picot in next st.

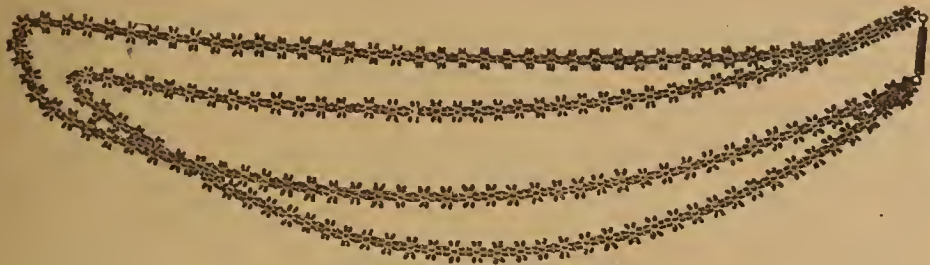
Another row all around the cap of \* sc in picot, 3 picots of 3 ch each in same st, ch 2, repeat from \*. On the front of cap ch 2, sc between wheels, ch 2.

JULIA A. WILLIAMS.

## A Forget-Me-Not Necklace

QUITE the fad at present is the making of bead chains that very much resemble daisies and forget-me-nots. Number 2 beads in light blue, and yellow beads

[CONCLUDED ON PAGE 19]



FORGET-ME-NOT NECKLACE

flying over the country on how to take care of the children and keep healthy."

The guests were too polite to enter into a discussion of the subject but they all knew of the little mounds in the cemetery wept over by the daughters before they learned how to care for the children. As a matter of fact many care-free girls do make sensible mothers, but it is because they intelligently study the care of children after they are married, if not before, and lay aside the care-free habits of girlhood. There are countless women who ignore the laws of health after they are versed in them, but many, many more drop into early graves through ignorance. The importance of sensible clothing, dry feet, proper food and other necessary duties should be impressed upon the minds of children from babyhood. In the opinion of many mothers ignorance of the laws of health is regarded as innocence in the daughters, but it is a dangerous innocence.

Perhaps the mother herself has learned through much tribulation. All the more reason she should smooth the way for her children. There are plain, simple books treating of the hygiene of the home that might be profitably read in any family, and the average school physiology contains a mine of useful information. Instead of fleeing to patent medicines the young man or woman will probe intelligently into the root of the matter and try to remedy the defect. The cellar drain, the closet too close to the dwelling house, the bedrooms devoid of fresh air will all receive attention when the family begin to study up on the simple rules of health.

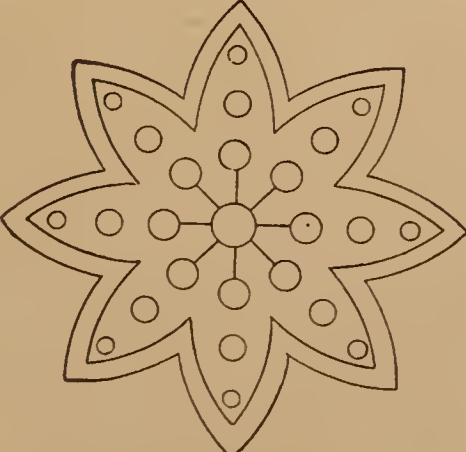
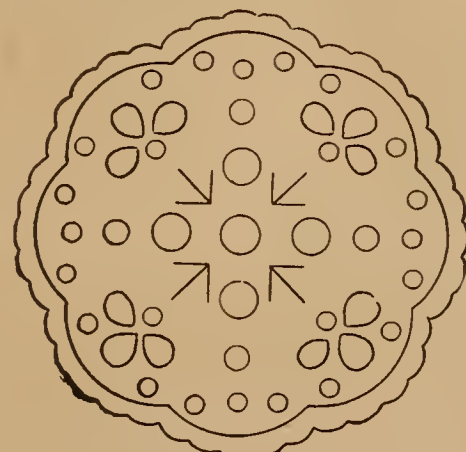
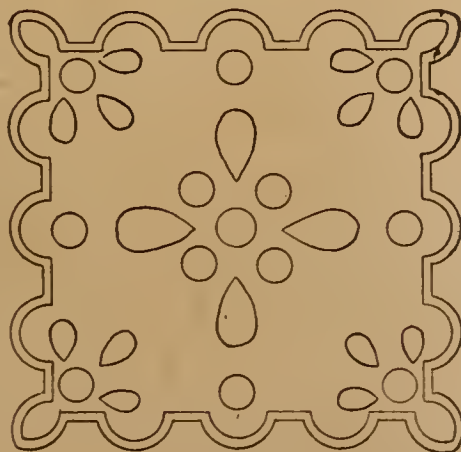
So before the wedding day the prospective bride must know something of how to keep her new home a healthful place if she desires happiness. Of course there are people who are sick and happy, but why have needless suffering? The money spent on medicine and visits from the family physician would make a nice little nest egg or provide many comforts for the new home. It is to be hoped that never again will the delicate young woman become fashionable. She had her day in the books of long ago and must give way to the sturdy, healthy young woman who knows that health and happiness go hand in hand. A well-stocked linen closet, good furniture, a nice house and good china add to wedded happiness, but above all a well-stocked mind towers. If the bride is delicate and not able to do her own work, or at least oversee it, strange hands will destroy her pretty conceits and mar her furniture, but the young woman with a knowledge of the laws of health will avoid much trouble.

Happy the young woman who has assisted in bringing up younger brothers and sisters! For her croup, colic, teething, accidents and little disorders will lose half their terrors if she should have a family of children.

To be calm in the midst of emergencies is to win half the battle, and this is possible to the trained young woman. To be able to make a poultice that will ease violent pain, to administer a hot bath to a bruise or injured limb, to be able to extract splinters and cleanse small wounds so that blood poisoning is avoided—in short to be versed in the everyday reme-

popularity each season. This fact is largely accounted for by their dainty appearance and inexpensiveness, as well as their very desirable laundering qualities.

Now that hand work is seen everywhere, and no garment is quite up to date without it, these little medallions are especially fancied by those who have only a few minutes daily for such work, yet prefer to make their own trimmings rather than pay the seemingly exorbitant prices the really pretty hand work brings. These small pieces are easily thrust into a work bag or basket near at hand, and are ready to be picked up if only five minutes' time can be expended upon them. And it is astonishing how quickly a large number may be finished. These medallions form attractive garnitures for lingerie waists and shirt-waist suits, whether white or colored. They are also the daintiest possible trimming for complete sets of underwear, and for collar-and-cuff sets of linen or sheer materials, for they may be fashioned from the finest of handkerchief linen, lawn or a good grade of art linen. Their suitability




MEDALLIONS IN BRODERIE ANGLAIS

to the garment they are to elaborate must decide as to materials. The cotton floss used for the stitch work comes in so many weights that any background material is readily matched with floss of the proper quality.

For table linens medallions are utilized singly or in groups, as borders or for ornamental corners. Sideboard, dresser and stand covers are also decorated in this

The edge may be buttonholed first or merely rolled under before whipping the lace into position. In this process it is wisest to baste the medallion to a piece of oilcloth or stiff paper. Measure a row around the medallion just as far from its edge as your lace is wide, and baste the outer edge of the lace into place by it, for it must be made to lie perfectly flat on the outer edge. Now draw up the ruffling






# Behind Adobe Walls

## A Story of the Old Santa Fe Trail

by Mary McCrae Culter



Fort Bent, 1840. Fort Bent, 1906.

[CONTINUED FROM LAST ISSUE]

CHAPTER V.

"I SEE there is a new commander at the fort since we went away. Who is he?" asked Trapper Bill, as he devoured his breakfast.

"Colonel Vernon, from somewhere in the East. A mighty fine man. Gets along better with the Injuns than Colonel Bush did. We've had peaceable times ever since he came. Hain't been a raid to speak of. There's talk of sendin' every blame Injun to the Injun Territory, then there won't be no business round here for us," returned the old scout, Joe Arment.

"Life'll be kind of tame without Injuns in it, an' that's a fact," remarked Belzy Pardee.

"They'll have to ketch 'em before they can send 'em," said another member of the hunting party. "Might as well talk of ketchin' all the coyotes an' herdin' 'em down in old Mexico. There hain't no gover'ment on earth—'ceptin' a cannon or Bill's rifle—as can take them Comanches off'n these plains an' make 'em peaceable. There hain't no peaceable Injun but a dead one. It's a pity we can't put ever' one of 'em into the powder house an' blow 'em up."

There was a general laugh over the hunter's forcibly expressed opinion. Across the table Smith was talking to Perdita in low tones:

"Who is this Colonel Vernon? Where is his home?"

"Here, just now, I reckon," she answered.

"Has he—is he a married man?"

Perdita looked at her questioner narrowly. Something in his tone excited that undefined, jealous fear.

"Yes," she answered. "His wife and his daughter are here at the fort. Dorothy is my best friend, but she is not going to be here long. She was telling me last night that she is going to be married soon to a fellow back East. That will break Lieutenant Robinson's heart when he hears it. He's awfully sweet on Dorothy. Did you have good luck while you was gone?"

"Ye-es," returned Smith, hardly hearing her question. He was dazed by the news he had heard. "Dorry was there!—in old Fort Bent!—the Dorothy whom he had tried in vain to forget—the Dorothy whom he had thought already married to 'some fellow back East!'" He wondered why the wedding had been postponed; why she had come so far away; whether she had known that he was in the West; whether she had learned that he had been at Fort Bent.

Then he was conscious that Perdita was saying,

"Why don't you answer me? Are you stone deaf?"

"I beg your pardon," he said. "I am so dead tired that I hardly knew you were talking. I will tell you all about our trip after a while. I must see to my pack of pelts, then I must sleep. This evening you shall sing to me, and tell me about all that has happened since I went away."

He went away with the rest, who had finished their breakfast, and Perdita discontentedly sought her friend Dorothy. With Spanish subtlety she added to the story which she had already told about Smith, and with the utmost assurance told Dorothy that the wedding was soon to be.

Late in the afternoon, when Smith awoke from his heavy sleep, he heard the sound of a violin, sweet, low and plaintive, and the tune was, "Ye banks and braes o' Bonnie Doon!"

He listened intently for a few minutes, then with a sob he turned and buried his face in the pillow.

"Thou mind'st me o' departed joys,  
Departed, never to return,"

he murmured, as the last, sweet note quivered into silence.

He went over the whole miserable story—the common, everyday story—of two who had been all the world to each other, but who had allowed misunderstanding, and doubt, and anger, and pride to put all the world between them.

Both had been equally to blame; Dorothy for letting the false pride of wounded womanhood close her lips when she would fain have recalled her lover; Donald for the strong Scotch pride which held that "the truth of a Graeme should never be doubted."

He had said that he was going back to Scotland, to remain forever; but a chance paragraph in a paper had caused him to suddenly change his plans and start for the Far West without informing anyone in America of his new designs. He had believed, when he left, that

she would soon be married, and all through his exile he had thought of her as the wife of another man. Now, by one of those remarkably strange turns of fate, she was under the same roof with him—and she was playing "Bonnie Doon!"

He sprang up in eager haste, discarded his rough hunting suit, and put on the garments of civilization. He made himself as presentable as time and circumstances would allow, and then hastily went out into the central plaza.

Perdita was watching for him.

"Here you are, at last. Come up to the tower. Word has come that the Cheyennes are out on the war-path. They have killed two whole families down on the Purgatoire River. The soldiers are ordered out. Come, and watch them go."

She spoke with excited rapidity, and led the way to the tower.

A girl was leaning from one of the windows, watching the movements of the men below. So intent was she, that she did not heed their entrance, but watched until the troop started, and called good-by to her father as he rode beneath her. The young man watched her, his heart in his eyes; and Perdita, with quickening jealousy, was watching him.

As Dorothy turned from the window, she met his earnest, inquiring gaze, and turned white with surprise. "Donald!" she cried impulsively. Then, catching sight of Perdita's flashing eyes and angry brow, she remembered.

"I beg your pardon," she said, with sudden coldness. "Is this the Mr. Smith of whom you told me, Perdita? Your resemblance to an old-time friend of mine is so

all the men there were—as crazy over her as all the men here are, I don't see why she cared to come away."

"I suppose she told you all about the man she is to marry?" Donald tried hard to make his tones indifferent, but succeeded so poorly that Perdita's suspicions were aroused.

"Why?" she asked. "Did you know her back East?"

"I asked because, a chum of mine was engaged to a Miss Vernon, of New York. I thought perhaps she had told you the name of the man whom she is to marry, and that he might possibly be my old friend."

"But come. Let us talk of more interesting things than Miss Vernon's beaux. Tell me what you all have been doing since I went away."

Perdita brightened. For an hour her tongue rattled on at a lively pace, and she was agreeably surprised by her auditor's evident interest. She did not realize how often she mentioned Dorothy's name, or dream that it alone was the charm that held this young man's close attention to her story.

"And Dorothy plays the violin—Oh, so beautifully! It makes my heart weep. We will play for you to-night, and Cara will sing. We have learned many new pieces since Dorothy came," Perdita concluded.

Donald had heard all that he could bear. Did he not know that "Dorothy could play—Oh, so beautifully?"

"There is Belzy Pardee," he exclaimed. "I have not seen him since I got back. Get your guitar tuned, ready to play for us after supper."

He went away in assumed haste, and Perdita, leaning from the window, wondered why he failed to join Belzy. Dorothy did not appear at supper time.

"She has a severe headache," Mrs. Vernon reported.

"I never knew the child to worry over her father's absence so much. She has cried ever since he went away, and refuses to be comforted. I wish we had never brought her out West. Her nerves have been growing worse ever since we came. The high altitude certainly does not agree with her."

Her words were plainly audible to Donald Graeme, who sat near the other end of the table. He had often found Mrs. Vernon's extreme nearsightedness the cause of embarrassing situations. Now he rejoiced in it, as it prevented her recognizing him.

After supper Perdita brought her guitar into the moonlit plaza and played and sang for the group gathered there. One of the soldiers brought his violin, and presently the noise of dancing was wafted to Dorothy's ears, as she sat beside the window of her own apartment, trying to decide upon her course of action.

"He is Perdita's lover. I promised her that I would not cause him to break faith with her. But I did not know—how could I know—that Don was the one of whom she spoke."

How can he love her? She is so ignorant, so coarse, so vain. Perhaps there is a mistake. But I must wait. I have promised, and I shall not break my word."

Her thoughts went on and on in the same unhappy strain, while the feet of the dancers kept time to merry music. After a time it ceased. There was a period of comparative silence, then, above the hum of voices, the echo of laughter, the numerous noises of the plaza, Dorothy heard the clear tones of the violin—and the tune was "Bonnie Doon!"

She buried her face in her hands with a cry of pain. Then she leaned from her window and listened with eager ears. Over and over again the song was repeated, and Dorothy knew the player was singing the words in his heart, and was intending that she should follow them, too. After so long a time he was speaking to her, and the music told of the misery of the days that lay between them. She wept, but joy was mingled with her weeping. Hope sprang up in her heart.

"To-morrow I shall see him," she told herself.

Footsteps approached her window, and she drew back and dropped the curtain before her. Two of the soldiers were passing, and she could not help but overhear their words:

"Perdita is beside herself with joy to-night. Smith is back again. No doubt the wedding will take place soon."

"I suppose so," his comrade answered, "though for the life of me I don't see why Smith wants to marry her. He is evidently of good family and good education. Why should a man of his attainments and talents marry a half-breed?"

"I give it up," returned the other. "Ask me something easy."



"Then with a desperate resolve she placed her violin beneath her chin, and from her bow fell the plaintive, dreamy strains of 'Traumerei'."

striking, Mr. Smith, that for a moment I thought you were he."

She was passing from the tower, when Perdita, with sudden impulse, tried to detain her.

"Don't go, Dorothy. Stay and get acquainted with Mr. Smith."

"Not now," Dorothy answered. "I must go and comfort mother. She will be grieving over father's dangerous expedition."

She went away without even glancing again at the young man, much to Perdita's secret delight and Donald's sorrow. Evidently she had not forgiven him, and had taken this way to show him that he need expect no favor from her. He was aware that Perdita was watching him closely. It would never do to let her discover that he was a rejected lover of Dorothy's; so he took his cue from Dorry's words.

"Is that Miss Vernon?" he asked. "She surely does not think much of the fellow for whom she mistook me. She is a fairly pretty girl, but most too high-strung for me."

"Oh, Dorothy is all right. She is not one bit proud. She is good to everybody," cried Perdita in defence of her friend. Since Smith did not seem at all attracted by the colonel's daughter, Perdita felt that she could afford to praise her a little.

"How long has it been since Colonel Bush was transferred?" Smith asked.

"He went away early in the spring. We have had lively times here, since then. There have been so many soldiers and so many travelers, and Dorothy has made pleasure for everybody. She tells us such beautiful stories of New York, and of the times she had there. If



## CHAPTER VI.

It is strange how small a misunderstanding is sufficient to separate two friends, especially when the two are young people. False ideas of "honor" and "pride" are much more prevalent in youth than they are with those whose judgment has become more fully matured. Because of overstrained "honor" on the one side, and indomitable "pride" on the other, Donald Graeme and Dorothy Vernon proceeded to make themselves and one another as miserable as possible.

Dorothy believed that Donald was engaged to Perdita, and held herself bound by her promise not to interfere.

Donald believed that Dorothy had never forgiven their quarrel of a year previous, and he misinterpreted her every move into an attempt to make him understand that he need not expect to be restored to favor.

With these conflicting principles as a basis, and with Perdita's Spanish jealousy and innate deceptiveness to help matters along, the breach between them stood little chance of being healed. Perdita took good care to shadow the two incessantly, and to see that by no possibility they could increase the friendship between them. All the inhabitants of the fort noted the change in merry Dorothy, but all attributed it to her anxiety about her father.

The troop of soldiers was kept out on almost constant duty, as the Indians had become more and more outbreaking, until neither settler nor wagon train, stage nor station was safe from attack.

Colonel Vernon and his men were kept almost constantly in the saddle, and the scenes that they witnessed were indescribable. Even the dwellers at the fort were, so far as possible, kept in ignorance of the horrors that beset them on every side, and of the danger that ever hovered near them. In the midst of it all, the loves and hates and petty details of small community life went on at the fort, with only a handful of military and a few feet of adobe wall to protect them from savage destruction. The majority of the men—the hunters and trappers and scouts—who made the fort their home, realized the gravity of the situation, and discussed the probabilities among themselves. The utmost precaution was used to prevent surprise of any kind. Stores of food and ammunition were carefully husbanded, and the condition of the wall looked into. Weapons were placed in order, and a place assigned to every man in case of an attack. There was little danger of any trouble unless the Indians got the idea that the forces at the fort were inadequate for its defence, or unless so large a war party gathered together as to make the redskins confident of being able to overpower the entire force.

The knowledge of this condition of affairs added no little to the gloom of Donald Graeme's spirit. It was bad enough to have matters so strained between Dorothy and himself, to be obliged to meet her as little more than an utter stranger from day to day; but when to this was added the knowledge of danger that ever hovered around them, and of the impossibility of escaping from it, he became almost desperate. He became so gloomy and morose that even Perdita no longer found his society enjoyable.

"I wish John had never gone away to the mountains. Trapper Bill has spoiled him. He no longer laughs and sings. He cares not to dance; and he draws no more of his beautiful pictures. He sits and looks away to the rising sun, and talks with no one but Belzy Pardee and the soldiers," she complained to Dorothy.

"And is there to be no wedding?" asked Dorothy.

Perdita looked at her through narrowing eyelids. She guessed more of the trouble between Donald and Dorothy than either of them dreamed.

"Oh, yes! The wedding will come by-and-by, when the Indians come no more, and when the soldiers are all back again at the fort. Everything is so gloomy, now that the soldiers are gone. Get your violin, Dorothy—please do. We have not played together for a long, long time. I am so tired of doing nothing, of seeing nothing, of being shut up so close in these four walls. Please come and play with me," Perdita pleaded.

Moved by a longing for the comfort of her music, and deeming that Donald was no longer to be considered, Dorothy yielded to her friend's request. Ere long the merry strains of music such as Perdita loved were ringing through the fort, and all who heard were cheered by the melodious sounds. Donald heard, but wisely kept out of sight, well knowing that his appearance would put an end to the little concert.

The girls played until Perdita was satisfied with lively music, and laid down her guitar.

"Now play the tune that sobs and cries until it breaks my heart," she said.

"Oh, no!" Dorothy objected. "You complained of being gloomy, and wanted the music to cheer you. Why should you want your heart to break?"

"I care not for that. Play my tune for me. I love it, and I have not heard it for so long," pleaded Perdita.

Dorothy hesitated. Then with desperate resolve she placed her violin beneath her chin, and from her bow fell the plaintive, dreamy strains of "Träumerei." From somewhere Donald suddenly appeared, his face white and drawn. How many times

Dorothy had played "Träumerei" for him in happier days than these. It had always been his favorite piece, and he knew that she knew it.

He did not stop near her, but walked to the battlements not far away, where he stood like a statue, gazing to the east.

As the last note died away, Dorothy walked swiftly to her room, without even looking to see whether he heeded her.

Perdita felt the strain, but she did not understand. She walked to Donald's side.

"Was it not beautiful? Did it not make your heart weep with its sweetness? I told you Dorothy could play, and now you know it."

"Yes, I know it," Donald replied drearily.

"Does it make you want to go far away to the rising sun?"

"Yes," he answered, almost fiercely. "I wish I had never come to this terrible country. Life holds nothing here for me."

"And you would go away and leave Perdita?"

"Belzy would still be here," he answered.

"You know that I care not for Belzy," she objected.

"You will, some day," he replied shortly. Then he, too, walked away. Perdita looked after him in dismay.

"It is not the rising sun that troubles him. It is Dorothy. Somewhere he has known her. And his name is not John, for she called him something else. They must have been very angry, for they speak not to one another if they can help it. I wish she had never come here. I wish she could go away. The old days were the happy days. Now everybody is sad."

In the solitude of her room Dorothy considered the situation from every point.

"I do not believe that he cares for Perdita. He has never shown it in any way if he does. He did not meet her as a lover would do after being gone for months in the mountains. He never seeks her society. Such a man as he cannot love an ignorant girl such as she is. The story of the wedding in prospect must be woven out of her own romantic imaginings. If only he would make some sign that he has not forgotten, that he still cares for the old times, perhaps—But he is so cold, so unforgiving in manner. I thought that when I played 'Träumerei' he would make some sign of remembrance, but he turned his back upon me, without even a word or a look. Oh, why did I let Perdita persuade me to play it? What must he think of me?"

But Donald had already forgotten "Träumerei" in a far more absorbing subject.

When he left Perdita he had gone immediately to the southeast tower, expect-

ing to find it deserted at that time of day. Instead of solitude, he found a little group of men earnestly discussing some question of momentous import. A Cheyenne Indian who was known to be a firm friend of the white men was the central figure, and around him were grouped Trapper Bill, Belzy Pardee, two of the chief officers of the fort and one or two other scouts and hunters. The Indian was speaking when Donald entered.

"Comanches, many; Arapahoes, mebbe two hundred; Cheyennes and Apaches, a plenty. They meet there and there," pointing to the hills on both sides of the narrow valley, "before two suns. They think many soldiers gone. Nobody but women at fort. Colonel Vernon way off by Trinidad, fighting Utes. He no can get back before many suns. Soldiers from Fort Lyons all gone far to east. They burn, they shoot, they starve. Fort all gone before soldiers get here."

The old scouts listened with grave attention, only the rapidity of their tobacco chewing showing the excitement which this awoke within them. The less experienced officers waited for the scouts to speak.

"It will take at least three days to get word to Trinidad, and get the men back here. We can easily hold out, unless the reds are too many for us. Who will take the message to the colonel?" asked Trapper Bill.

"Me go," said the Cheyenne. "Me know every arroya, every cañon, every trail. Me get colonel here in three suns."

"Good," said the commanding officer. "Be ready to start when darkness falls. The stock must be brought into the fort. Joe, you may take charge of that. Anderson, look to the guns. Bill, you may go on scout duty to the south, and Belzy, to the north. Scott and Davis may examine every foot of the walls, and prepare extra fastenings for the gates. Watson, take what men you need, and burn a good fire-guard around the fort. Now, every man to his post."

The little company scattered at the word. Belzy stopped at Smith's side.

"Where is Perdita?" he asked.

"I left her in the other tower, five minutes ago," Donald answered.

"I must see her before I go," Belzy said, as he hurried away. Donald looked after him with pitying eyes.

"Poor fellow! He may never return, and he knows it. And all his thought is of Perdita, who scorns him. Perhaps the knowledge of his perilous mission will awaken her dormant love and she will forget her foolish fancy for me."

Then he, too, hurried away to assist in preparations for the expected siege.

[TO BE CONCLUDED]

## When Polly Came to Blue Sky

IT WAS midday when Polly landed in Blue Sky. She came on the spring-wagon with the week's provisions and the mail-bag and the Sergeant.

Once the Sergeant had run away from Blue Sky and his native redwoods, and had gone for a soldier-boy; but the malaria nipped him somewhere around Matanzas, and they had sent home what was left of him, and given him the mail-route



from Blue Sky to Yuba City. He had never felt really grateful to his country for the favor until the day Polly rode with him as passenger over the old stage-road.

It is over twenty miles, and the mornings are glorious down in the cañons, where the pines shoot up above your head like huge tropical palms, and the redwoods whisper to each other in the mist wreaths that cling to them from the dawn. Twenty-odd miles, and the Sergeant is good to look upon. Even Blue Sky was proud of him, in a kindly, forgiving way. It never quite forgot that he had deserted it once for the music of the drum. But he was good to look upon—built along the same lines as a mountain-lion—sinewy and long-limbed and easy, with yellow hair and grayish eyes. Not handsome, perhaps, but a clean-handed, brainy youngster, with plenty of grit and good temper, like they breed out there in the woods.

Before they had gone ten miles Polly had told him she was from Indiana—Aldensville, Indiana, named after her great-grandfather. Yes, she was Miss Alden. No, she didn't think she'd be lonesome in California. She liked the trip real well, and she thought the cañons were beautiful,

and Joe said her home would be right up on the side of the most beautiful. He had written her all about cañons. There was a big ravine back of the cornfield at home, deep and rocky, and Joe said cañons were like that, only about seventeen hundred times bigger. Maybe the Sergeant knew Joe—Mr. Joseph Studley. She guessed he owned a fine mine at Blue Sky.

The Sergeant stared wistfully at the tips of his horses' ears, and wished deep in his heart that neither he nor Blue Sky had ever heard of Joe Studley. But he had, he told her. He knew him quite well. He believed he did have an interest in a mine. Oh, yes, he was well known in Blue Sky—a prominent citizen.

Polly sighed contentedly. Joe had written that he was doing splendidly, but it was sweet to hear his praise from another's lips.

The Sergeant asked casually if Mr. Studley was any relation, and the question sent the telltale color to her cheeks like a danger-signal. Not exactly, she said. They'd been engaged going on three years—ever since Joe had left Aldensville. He had wanted her to come out with him then, but mother and the folks said she was too young. She was twenty now. Unconsciously her head tilted with a trifle more dignity. They were going to be married as soon as she reached Blue Sky. Joe had a place all fixed up for her.

For over a mile the Sergeant was silent. He felt overwhelmed by the pure, natural cussedness of things in general, and of Joe Studley's manner of managing his private affairs in particular. And with the impersonal view of mitigating the general cussedness as much as lay in his power, he made the rest of the drive as interesting and pleasant as possible for the poor little girl from Aldensville, Indiana.

It was interesting. When the wagon drove up in front of the Central Hotel at Blue Sky it was a happy, pink-cheeked stranger whom the Sergeant carefully as-

sisted to alight. And later, when he left her under the wing of Mrs. Tully, guardian mother-spirit of the hotel and the whole camp, it was not of Joe she thought, but of the Sergeant and his gray eyes that held a smile in the corners.

But the Sergeant had his own stern ideas of duty, and he made his way without hesitation to the rough, ramshackle shack of Mr. Studley, the one man in camp that Blue Sky was ashamed to own as a citizen. If he had been out and out bad, it would have been easy to finish him up.

But Joe Studley was different. He came to us, and set up as something a little extra. We wouldn't have been angry, or surprised even, if he'd sprung evangelism in a quiet way. But he didn't. He just deliberately won our confidence, and then turned out to be the meanest man that ever came over the trail.

The shack was full of the smoke from frying salt pork, and the Sergeant did not enter. Joe lounged in the doorway, and waited with mild-eyed expectancy.

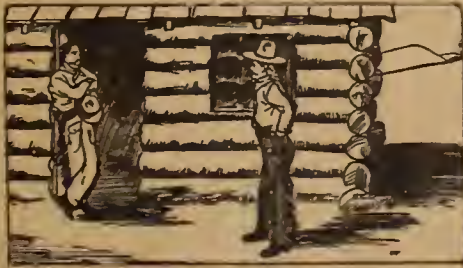
"She's come," said the Sergeant. "And she wants to see you. I left her down with Mrs. Tully. She expects to be married to-day."

"So do I," said Joe. The Sergeant's shoulders stiffened. "If you try it we'll send daylight through you," he said. There's a wife

down at Yuba looking for you now. And there are a few unsettled personal accounts right here in Blue Sky which might be pushed against you with a little persuasion on my part. I didn't come up to deliver any message from Miss Alden. I just came to say it was your call to clear out after you've explained matters down at the Central to her. No arguments or presuming on old acquaintance, just explanations as to why you're not able to tie up with a new Mrs. Studley. Then you can get out."

"What will become of Polly?"

The Sergeant hesitated for the first time, and his gaze softened its severity.



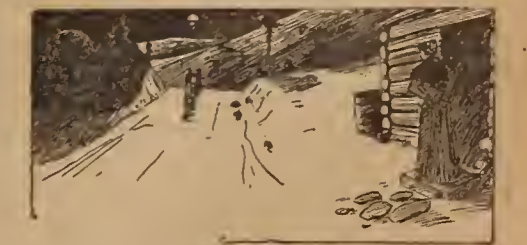
"She'll be treated right and proper," he said. "I guess Blue Sky can look after one poor little girl from Indiana."

It was a bloodless victory for the Sergeant. He marched Joe down to the presence of Polly, and stood guard while the explanations were made. They were not needed. Mrs. Tully had been doing missionary work in his absence, and the character of Mr. Studley was like a fire-blackened prairie when she finished her tale of his misdoings.

Polly was not hysterical. She was cool and serene, and a little amused at the bearded, awkward camp-lounger Joe of Aldensville had developed into. She listened smilingly to the explanations, and when they were all told she turned to the Sergeant, and asked when he made the return trip to Yuba City.

But when another rose dawn broke over Blue Sky the shack up in the cañon was vacant, and later advices from Yuba told of Joe's swift departure with the Mrs. Studley of that point.

And Polly lingered, growing prettier and rosier every day with the winds that stole down from the mountains, and the pure, piney air of the cañon. Each time he came up from Yuba City the Sergeant told her he would take her back next trip; but the days went by, until there came an evening when Mrs. Tully ventured out on the front stoop of the Central Hotel for a breath of air, and saw two figures silhouetted in the moonlight. There were two figures, but only one shadow, and she tiptoed gently back into the big back room,



where the smoke was thick and voices many, and ordered Blue Sky to get ready for its first wedding, because, from all indications, Polly was going to stay.

I. L. FORRESTER.





GENERAL VIEW FROM THE CAMPUS, SOLDIERS' HOME, DAYTON, OHIO

## The Finest Soldiers' Home in the World

Where the Closing Days of the Civil War Veterans are Made Happy and Comfortable by Uncle Sam

**T**HE survivors of our great Civil War have reason to hold in grateful remembrance the names of William Cullen Bryant and Henry W. Longfellow, for these two silent singers originated the memorial to Congress in the year 1864 that resulted in the building of our great National Home for Disabled Volunteer Soldiers. It is the largest and costliest home in the world for those who have jeopardized their lives for their country. From a beginning of one national home for our disabled soldiers we now have eight branches, besides a number of state homes. It has cost our government something more than fifty million dollars to establish and maintain all these soldiers' homes.

There is one branch at Togus, Maine; another at Hampton, Virginia, and one at Milwaukee. The most beautiful of the branches beyond the Mississippi is at Santa Monica, in California, and there is a very large and fine branch at Leavenworth, Kansas. Marion, Indiana, has a branch, and so has Danville, Illinois, but the great central home at Dayton, Ohio, is far and away the most interesting of them all.

This central home is really a city of the boys in blue, of those whose boyhood days are far behind them, but who are "boys" still in name to each other. Some of them were but little more than boys when they responded to Lincoln's call for "three hundred thousand more." None of them had reached the meridian of life when they responded to this call, but now all of them are in the sunset days of their journey down the years, and out beyond the home are the graves of more than seven thousand of their number who respond no more to the blare of the bugle that calls the inmates of the home from their beds in the early dawn of the morning. And every year a larger number of them are added to the long rows of graves

their friends and comrades deck with flowers on Memorial Day.

Some idea of the great magnitude of the Soldiers' Home at Dayton may be

gained from the fact that the buildings stand on a tract of five hundred and seventy-eight acres of ground, costing a little more than ninety-seven thousand dollars,

and more than one and a half million dollars have been spent for buildings and in improving the grounds. The latest report gives the number of inmates at five thousand seven hundred and forty, and of this number nearly five hundred are in the hospital. The capacity of the hospital is six hundred beds. Five thousand two hundred and seventy-seven of the "boys" draw pensions. The home is really a city. It has its own electric lighting works, its own gas and heating plants; its own water works. It has two fine chapels, one Catholic and one Protestant. It has a fine library, and a theater with a seating capacity of sixteen hundred. It has a fine clubhouse in which there are reading-rooms, game-rooms and lodge-rooms, for many of the "boys" are members of secret societies. It has a beautiful conservatory, a great deer park, and its five hundred and seventy-eight acres of ground are kept in perfect order.

It is of some interest to know that Uncle Sam has to provide three thousand pounds of ham or sausage for the breakfast of this family of "boys." He must provide thirty-five bushels of potatoes and eight hundred pounds of bread for this one meal. One hundred and forty-eight pounds of coffee are needed for dinner, and the cooks must turn out twelve hundred and fifty pies for a single meal. Thirty-five pounds of tea are required for supper, and eight hundred pounds of bread, for the appetites of the "boys" do not decline with their years.

This soldier city contains no liquor houses. A state law prohibits the sale of any liquor within a mile and a half limit of the city.

The location of this city of soldiers is charming, for it is on the summit of a high elevation, and below is the Miami Valley. It is three miles from the town of Dayton—far enough away to be entirely apart from that place.



GOVERNOR J. B. THOMAS



REVIEW DAY AT THE HOME





HOSPITAL

Although the great Civil War is forty years in the past the average age of the inmates of this, the greatest soldiers' home in the world, is but sixty-six years, for many of the volunteers, of the days of sixty-one and two and three were still in their teens when they responded to Lincoln's call, but three and four years of the hardships of war told on even the youngest and most vigorous, and many of the inmates of the home are older in looks than in years. Many of them are still flaunting a no-surrender flag in the face of that foe of all mankind—Old Age—and are steadily refusing to grow old in spirit.

One who has visited the home and has seen the routine of life for twenty-four hours must come away with the conviction that Uncle Sam is no niggard in his treatment of the men to whom he owes so much. It would be difficult to suggest anything that would add to the actual comfort of this great home he has provided, and while it is inevitable that it should have the institutional atmosphere, it is by no means an unpleasant atmosphere, and nine tenths of the boys would have to admit, if they were "honor bright" in their confession, that they are far more comfortable here than they were in the homes they left behind them. But the ever-present growler is sure to be on hand to find fault. He is far from being in the majority, and most of the inmates are honest enough to admit that the home is all that it is possible to make it and they are happy and grateful accordingly.

It is worth while to be in this great institution when the welcome call to breakfast is sounded. When the first stroke of the gong sends its clamor through the camp every one of the soldiers has already dressed himself in his undress uniform, has made his bed and cleared up his quarters for the day. At the second gong they march out of the thirty-five two and three storied brick buildings, which serve as barracks. A third time the gong sounds. Tramp, tramp, tramp, the boys are marching—to the conquest of two tons of corned beef hash and other equally formidable enemies. A glance into the mess hall is almost appalling. Tables and tables and endless tables; behind each chair a soldier standing; a single stroke of the gong, and more than three thousand chairs are pulled back; two hundred and fifty waiters spring into instant action; a tremendous clatter of forks and knives and cups and plates rises; three thousand two hundred valiant trenchermen fall to at the same signal.

And when these trenchermen have had their breakfast as many more take their places, for it is impossible to seat but one half of the inmates of the home at one time. There is not "infinite variety" in the meals served at the home, but everything is of the very best. There is no cheap butter nor meat nor food of any kind. Bread, butter and coffee form a part of every breakfast the year through, and there is always meat of some kind, although it sometimes appears in the form of hash. Meat nearly always forms a part of the dinner, but once or twice a week soup takes its place. Here is an average dinner bill of fare: Roast beef, potatoes, gravy, parsnips, pickles, bread, coffee. This will be followed by a supper consisting of fruit sauce of some kind, bread, butter, biscuits and tea. One notes in looking over the bill of fare for six months that apple pie appears on the table every Sunday night and that roast beef is always served at the Sunday dinner. Of course fish is sure to appear in the Friday bill of fare. There is an absence of the things usually classed under the head of "dainties," but of the food that "sticks to the ribs" there is no lack in quantity or quality.

Plain as the meals are, it requires the services of almost fifty cooks to prepare them, to say nothing of twenty-five bakers and twenty-five bread cutters. Nearly two hundred men are needed for the rather unmanly and prosaic work of washing the dishes, and all of the "kitchen help" are men. A few of the soldier boys are employed on salaries at the home, but the great majority of them are not strong enough to do much work and it is pathetic

to note how many of them are in the hospital. There is scarcely a day when some one is not carried forth to the cemetery and some newcomer takes his place. It cannot be long before there will be no one to fill up the broken ranks in the home.

After breakfast our soldier boy may follow the leadings of his own sweet will throughout the day. In most cases a good many of the boys find their way over to the beautiful library buildings and club-rooms, where there is no lack of reading matter of every description. In the summer months there are long walks to be taken and many hours are spent under the trees. The boys need not take thought as to what they shall eat or drink or wear, for it is all provided for them. Food, clothing and lodging are furnished by Uncle Sam, and all that is asked in return is that those who are able to do so become "kitchen colonels" at certain intervals and assist in the work of the kitchen. This service is not required oftener than once in three weeks and then it is not a very wearisome duty, for it consists of nothing



CLUBHOUSE

more exhausting than paring apples or potatoes or perhaps helping with the washing of the dishes. Some of the boys find it rather an agreeable change from the often tiresome work of killing time.

If one wants to hear war stories one may hear them without limitation in this city of soldier boys. The imagination is one part of the human make-up that seems never to fail, and it is often strongest in the declining years of life, and is apt to become involved with the realities so that it is not easy to discriminate between the imaginary and the real. One cannot help feeling that there must be a dividing line somewhere between the real and the imaginary in the wonderful tales some of these gray-headed boys like to tell of the days "back there in the sixties." Nowhere will one hear more thrilling tales of hand-to-hand encounters, hairbreadth escapes, harrowing prison experiences, deeds of tremendous daring, rivers of gore, all the stirring events that go to make up the woful story of any great war. One may have a suspicion that some of these thrilling tales are more imaginary than real in certain individual cases, but one is at the same time sure that many of these old and broken veterans have experienced to the full all the fearful things that war is sure to bring to pass. Now and then some over-garrulous yarn-spinner will be brought up short by an embarrassing challenge to produce proof of the tale he is telling. It might be a little difficult to produce the "documents" demanded by some of the boys before they will accept as real the tales some of their comrades tell of their exploits with Grant and Sherman. Sometimes there is enough of the fire of youth left in the boys for them to be willing to "fight it out" when their veracity is too fiercely assailed, and now and then an over-excited individual finds himself in the guardhouse as the result of his lack of self-poise, for there is a guardhouse to which offenders against the rules of the home may be committed. It is rather humiliating to a man of spirit to be sentenced to do an extra week of kitchen duty for some lapse from good conduct.

Governor J. B. Thomas is commander, and presides over the court in the headquarters building; while he is as lenient as possible with all the offenders, he recognizes the fact that a certain amount of discipline is imperative in an institution like this. There is a bank in this city of soldiers, and they receive through this bank upward of three fourths of a million dollars in pensions annually. Some of the soldiers are frugal in their old age, and they never take all of their pension money from the bank, but leave it on deposit. Others send their pension money home to relatives, but by far the greater number of the soldiers have no one dependent upon them. Indeed, one reason why they have sought the refuge of the home is because they are homeless and friendless.

There are very few of the boys left in the buildings "when the band begins to play" on fine afternoons. There is a band stand in the center of the parade ground and the home band plays here every pleasant afternoon. In winter the band plays three afternoons a week in Memorial Hall.

The greatest day of all the year is Memorial Day, the day when the boys again go marching by to the sound of fife and drum. This is the one day of the year when the soldier comes into his own again in the minds and hearts of the people of the nation. Then his half-forgotten existence is remembered. Then due homage is paid to both the living and the dead. Then, as at no other time, the nation remembers its debt of gratitude to the survivors of the war. We are ready to say "Amen" to the words of the late President McKinley when he said in a Memorial Day address: "Liberty owes them a debt which centuries of tribute and mountains of granite adorned by the master hands of art can never repay. And so long as liberty lasts and the love of liberty has a place in the hearts of men, they will be

Army of the Cumberland, and no younger man shall take his place behind them so long as he is able to hobble out from his quarters. All about the parade ground, crowding the streets and footpaths, thousands of civilians are massed, waiting for the parade to form. As the nine o'clock gun bellows across the park the band breaks out into 'Rally Round the Flag, Boys,' and company after company of the forgotten army files out of its barracks and marches across the field to the place assigned it. And what an army it is! Canes and crutches and empty sleeves and long white beards! Limping feet that try hard to keep up with the rattling music! Old figures, bent with disease, that straighten up painfully to march once again in the old line, elbows touching, eyes to the front! Brogans polished, brass buttons shining, dress uniforms—all made in the home factories—freshly brushed! On every lapel a sprig of spring flowers!

"The band plays louder; fives shrill and drums throb; loud orders rattle up and down the broken lines; the column starts and the waiting people break into a cheer. Suddenly comes a change. Old men seem to grow young again for the moment. They straighten up! a flush comes into leathery old cheeks and the old fire into sunken eyes; halting limbs catch the swinging stride which carried Sherman's armies from Atlanta to the sea. For an instant the forgotten army is ready to follow its old leaders into any desperate battle-fields. The lost legions have come back again."

The grand parade of the boys in this great city of soldiers is a sight to quicken the pulses, and the eye grows dim when the men march forth to lay the memorial wreaths on the long, long rows of their departed comrades who will march with them no more. They know that ere another Memorial Day comes around many more of their number will have left this city of the living for the great city of the dead.

MORRIS WADE.

### Memorial Day

BY BEATRICE HARLOWE

O'er the breadth of a great republic,  
From ocean to ocean borne,  
Wherever the stars of her banner  
Gleam out to the light of morn;  
From the depth of her grain-sown valleys,  
The slopes of her wooded hills,  
In the song of her wind-swept prairies,  
The rhyme of her peaceful rills,  
Comes the noiseless tramp of an army,  
Shadowy, silent and gray—  
An army, though vanished its legions,  
Yet lives in our hearts to-day.

To the men who from field and forum  
Uprose at their country's cry,  
Their lives, if the need, for the honor,  
Their honor for her to die;  
Who, seizing the gun for the plowshare,  
And grasping the sword for the pen,  
Went forth an army of patriots,  
Of noble and free-born men;  
'Tis to these a hand of a nation  
Its tribute of love will pay,  
Wherever the grave of a soldier  
Shall hallow its soil to-day.

Not with branches of yew nor cypress,  
But with roses and blossoms sweet;  
With amaranth and laurel above them,  
And heartsease fair at their feet.  
While softer than winds of the summer,  
And sweeter than roses bloom,  
Are the memories and love which gather  
And brighten each silent tomb;  
And though Time in his march triumphant  
Bends all to his final sway,  
Yet the touch of the Great Eternal  
Is nearer than he to-day.

O'er these graves where all strife is ended  
Where the past and its memories lie,  
Rise the grateful hearts of the people  
In prayer to the Lord Most High  
For the hope of a prosperous future,  
The gracious gift of His hand;  
For a great and united nation,  
A free and a fruitful land;  
For his angel of Peace, whose pinions  
Stretch over that land to-day;  
For the love that claspeth as brothers  
The hands of the blue and gray.



SECTIONAL VIEW OF CEMETERY



## A Very Simple Homemade Canoe

TO THOSE of you who have never tried it seems a big undertaking to build a boat of any description, but let me tell you about this one, and you will see it is not difficult—more than that, you boys need not be stopped by a few difficulties, even if there were some.

The boy who starts out to build anything for himself, and builds it well, is very likely to be the boy who in later years will make his way in the world. And the boy who builds a boat is far and away ahead of the boy who doesn't.

The boat that you build and paint and name yourself will bring you more fun to the minute than the boy who doesn't build one is likely to have in his entire prosy boyhood.

To begin with, when you make up your mind to build a boat, remember that its first requisite is safety. If you love boating, you love perhaps the noblest and cleanest of all sports, a sport that will, if you follow it out, make you strong and manly. But never venture to "trust to luck;" be perfectly sure your boat will not sink, even if it does turn over.

Get a smooth board one and one fourth inches thick, two inches wide and twelve feet long for the keel, two strips one and one fourth inches wide by one half inch thick, and thirteen and one half feet long, for side strips; some barrel-hoops, a piece of canvas, galvanized nails, a few brass screws, some carpet-tacks (large size), and two boards for the stem and stern posts. These posts must be fifteen inches high

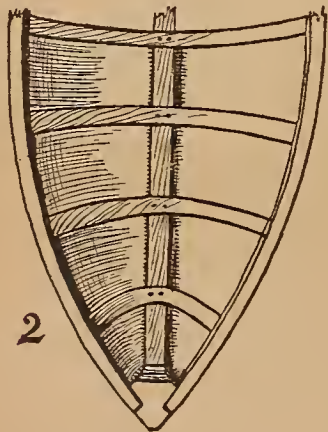
and as thick as the keel boards—those made of elm or ash are the best. Get a rough pine board thirty inches long and eleven inches wide for the "mold." A saw, a chisel, a hammer, a gimlet and a screw-driver are all that you will need in the way of tools.

Cut out your stem and stern posts alike, and mortise them into position on the keel, as shown in Fig. 1. After fitting them, round them off alike, as shown in the drawing, so as to give the canoe a sharp entrance through the water.

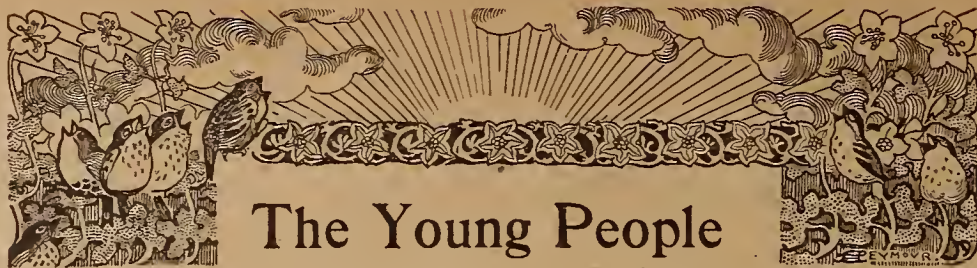
Now cut out the rabbet in both stem and stern pieces (the rabbet is just a notch cut deep enough to allow the side strip to lie flush when it is bent around the "mold" and fastened into place; Fig 2.) There will be four of these notches altogether. Now fasten your "mold" (Fig. 3) in place in the middle, tacking it lightly on the keel. Fasten the two side strips at one end temporarily, bend them around the "mold" to the other end, and fasten them into place permanently with screws. Always be sure to bore holes in the strips before putting in your screws, or they may cause the strips to split.

Now take the ribs—the barrel-hoops (they should be the flat kind, not those covered with bark)—and nail them eight inches apart all along the upper side of the keel, or what will be the inside of your canoe. Bend the ends of the ribs up to the outside of the side strips, nail them fast, and saw off the ends. Some of the hoops will break toward the stern, but that does not matter (Fig. 4).

Clench all nails, and always bore holes

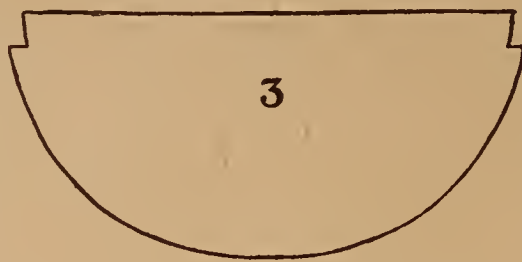


before driving them in. Take out the mold, and measure for the canvas, which should be the heavy kind. To measure for the canvas, fasten a string on the under inside of the side strip at the widest part of the canoe, and pass it under and around the canoe to the under inside of the opposite side strip. This will give you the widest point in the middle. Measure your canoe in several places in the same way. Then measure the length of your canoe, allowing three inches longer. Lay these measurements on the floor, and cut your canvas (Fig. 6). Now place the canoe bottom side up on any wooden supports, tack the canvas in place exactly in the middle on the stem and stern posts, and pull it taut with the center line of the canvas. Begin amidships, and drive the tacks two inches apart along the inside of the side strips (Fig. 5), then drive tacks



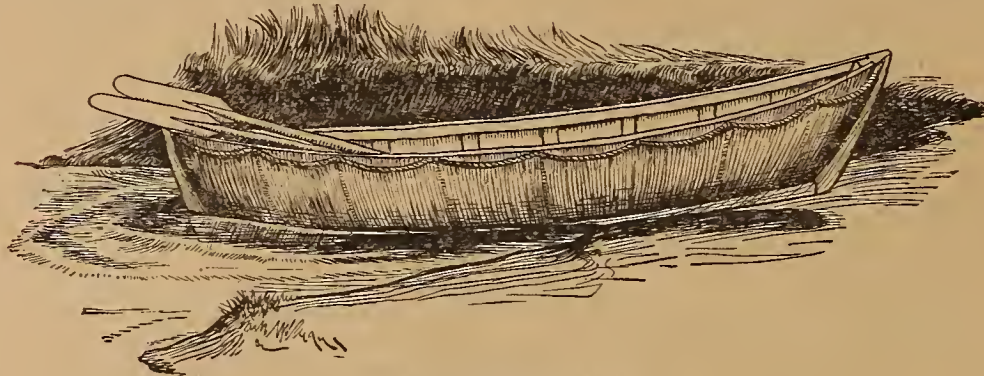
## The Young People

in the alternate two-inch spaces along the outside of the side strips, always pulling the canvas tightly. Tack it firmly around the stem and stern posts. Fasten a light



board one half inch thick in the bottom for a floor. Make fast with screws from the outside two pine braces across from the side strips, three and one half feet from either end—this will insure the canoe keeping its shape, and your boat is nearly finished.

Now procure some empty cigar-boxes, and fasten down the lids tightly all around, then cover them with light canvas, and give them a coat of paint, so that they may be water-tight. They are now air-chambers. Fill a space two and one half feet in the stem and stern with these boxes,



THE CANOE COMPLETE

holding them in place by tacking a piece of light canvas completely over the ends of the canoe inside. Thus your canoe is made practically unsinkable.

Give the whole a coat of linseed oil and two coats of paint, a name, and a safety rope fastened at intervals all around the entire canoe on the outside, and with very little effort you will have for your very own a charming canoe exactly like the one that is shown in the illustration.

Some appropriate names for canoes are "The Red Rover" (painted red), "The Escape," "The Spy," "The Hiawatha," "The Sea Fairy," "The Nautilus," but of course most boys need no help for a name for a canoe.

The safety rope is most important, and should be securely fastened at short intervals entirely around the canoe. The best of canoes will sometimes tip about in the most surprising way, and the safety rope is easy to catch hold of if the canoe is bottom side up.

It will not be long before the ambitious boy will want to rig

a sail for his boat. Well, this can be done even in so light a craft as a canvas canoe, but good advice to the boldest and the bravest of you in all matters of boating

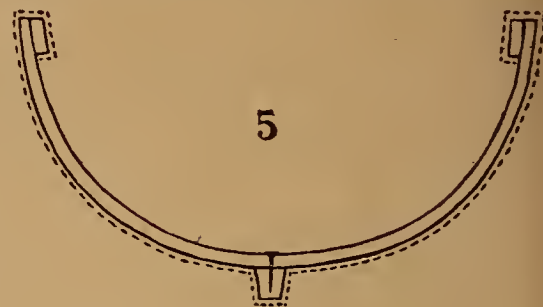
is, "Go slowly, feel your way and learn all the lessons you can in caution and carefulness." Above all else, before you attempt to sail a boat of any kind whatever, be sure to learn how to swim.

T. B. CABELL.

## Jolly Guesses for the Little Folks

THE following jolly game was recently played after this fashion: The guests were arranged in a circle around the room. One young man occupied a revolving chair in the center of the circle, so that he could easily face anyone in the room.

"Ladies and gentlemen," he said, "I am here for criticism, advice and condemnation. I am not sensitive, and it doesn't matter what I get, but the principal words of your answers must begin with my initials,



J. C. F." Turning to the first one, he said: "What sort of a chap am I?"

"Jolly, careful and frisky," was the prompt answer.

To her right-hand neighbor he said: "What sort of a wife ought I to have?"

"Jaunty, cunning and fast," was the rather disconcerting reply.

"What ought I to eat?" he asked of the next person.

"Jam, custard and fish," she answered.

"What profession am I best fitted for?" was asked the fourth person.

"Janitor, carpenter or fisherman," was the reply.

"I don't agree with you," he exclaimed; appealing to the next person, he said: "What do you think I am best fitted for?"

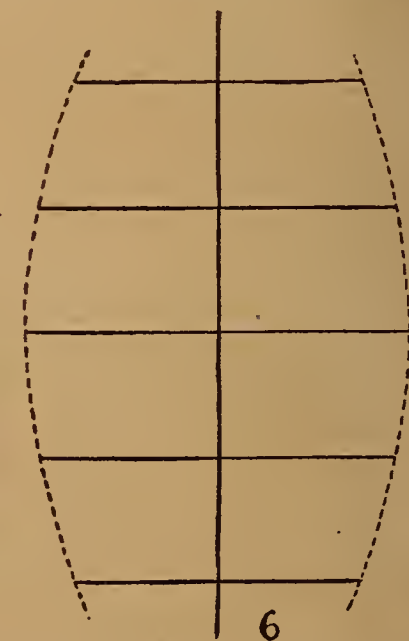
"Judge, commercial lawyer or financier," was the more flattering answer.

When a person failed to answer he was obliged to change places with the questioner, and giving his own initials, ask questions about himself. No question is allowed on any other subject.

## BIRD GAME

First, a leader or bird catcher is chosen, who gives each player a bird to represent, selecting such birds as have notes that are easily imitated. No one, however, must represent the owl, for reasons hereafter to be given.

The players then take seats around the room, with their hands placed on their knees, and the leader begins to tell an incident or a little story, in which birds take the chief parts, particularly the birds represented by the players. Each player as



the bird he represents is mentioned, must utter the call or cry of that bird, never for an instant taking his hands off his knees.

When the leader mentions the owl—which he should do every now and then—no one must make a sound, but each player must take his hands off his knees and put them behind his back, where he must keep them until some other bird is mentioned by the leader, when he must put them on his knees again.

If the leader can catch a hand while this change is taking place the owner of it must pay a forfeit and also take the leader's place, when the game starts again with the new leader's story.

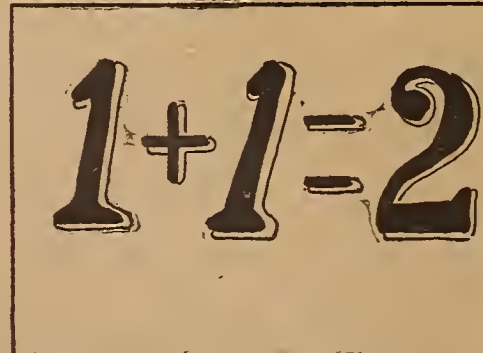
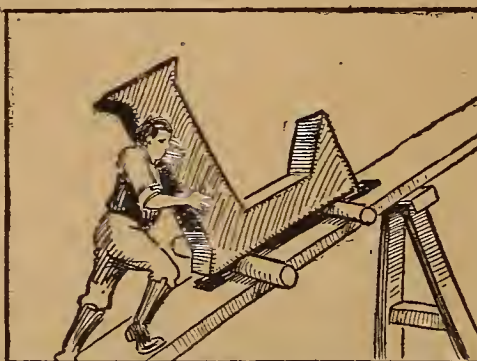
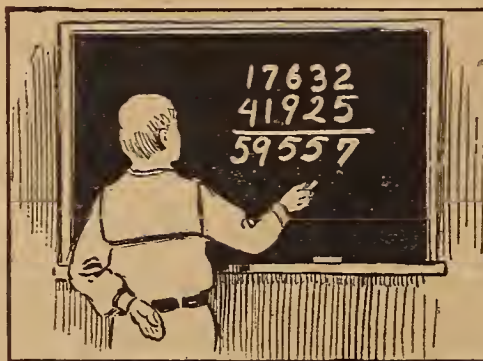
The leader in his story must speak now and then of "all the birds of the air," and when he does so all the players must utter at the same time the calls of the birds they represent.

FRANK H. SWEET.



## The Puzzler

Represented in the Pictures Below are Six Different Tools Used by American Workmen



Answers to Puzzle in the May 1st Issue: Catskill, Puritan, Marblehead, Concord, Nantucket, Terror

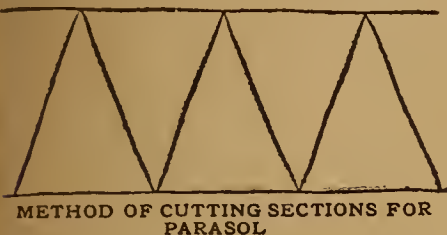




## The Housewife

### Re-Covering Parasols

TO BE well gowned presupposes the possession and use of numerous accessories to the toilet which give to the wearer a trim, finished appearance apparently at variance with slender purses. And 'tis true that all these trifles mount up rapidly when sums in addition are undertaken if they are purchased outright in the shops. But it is just here that the women and girls who are blessed with nimble fingers, however flat their purses may be, are enabled to



METHOD OF CUTTING SECTIONS FOR PARASOL

hold their own with their wealthy sisters, and oftentimes eclipse them in dainty and appropriate effects, if they are willing to devote a little time to the subject.

One of the most expensive items for the summer toilet is that of parasols, since Dame Fashion has decreed that these shall harmonize with the various gowns worn. If one cannot quite reach this mark white is correct with almost any toilet, and is consequently greatly in demand, especially when decorated by hand. These may be of any parasol material, but heavy linen ones will be found most serviceable, since they can be freshened whenever necessary by a liberal supply of cold water and white soap. When thoroughly cleaned rinse in several changes of clear water, with a touch of bluing in the last; open and allow the parasol to become perfectly dry before closing. The linen stretched while wet dries smoothly.

Parasols may be purchased in plain materials and embroidered or lace trimmed to please the owner, but it is a difficult matter to work neatly over the framework. It is less trouble to make the cover entirely and also less expense if one has an old frame which can be utilized. The frame should be in good working order, clean and well polished. A section of the old cover carefully ripped out will make an exact pattern for the new. Lay this pattern on your linen so that the wide part which forms the outer edge of your cover and the tip are along the selva edges. By changing the pattern from one side to the other there will be no waste except at the ends, as the sections fit into each other exactly. The cut shows this method clearly. If the material is too wide there will necessarily be a waste through the middle, because the selva must finish the outer edges. Seven or eight sections are the usual number, frames varying in this respect.

Work the design near the outer edge and in the middle of each section. This may be in embroidery or lace, as one pre-



LACE MOTIF FOR PARASOL

fers. Original designs are shown for both. The embroidery design illustrated should be carried out in eyelets and solid work; the leaves and petals worked solid over a few padding stitches; and the disks and flower centers in eyelets, though these, too, may be worked solid if preferred. The stems are simply outlined.

The lace design is readily followed with any modern braid, the stitches all being of easy construction. One may utilize any favored stitches in lieu of those shown, and the rings may give way to woven devices if desired. Spider-web, herring-bone and branch insertion comprise the list as illustrated.

After the decorative motif is completed for each section the joinings are made by laying two sections together, rolling the edge over and stitching on a machine,

using either a chain stitch or a loose tension to allow plenty of give. A glance at a parasol or umbrella will show how these seams are made. At the apex a small hole is left to slip over the tip of the handle, which is inserted after all sections are united. But first slip onto the handle a small circular piece of the linen, two or three inches in diameter, hemmed all around, and with a small hole in the center, hemmed or buttonholed. This gives strength and a neat finish to the inside of the parasol.

Have the parasol closed when you first put on the cover, and sew each seam to the "eye" or hole in the rib for that purpose, wrapping the thread around both rib and linen several times before fastening it securely. Catch the two portions of the seam together around each rib at intervals to the apex. Secure the top to the stick by wrapping with strong thread, and cover this fastening with a small puff of the linen, or another small circle, finished neatly on the edge, and with an eyelet strongly worked in the center to fit the stick perfectly.

A strip of the linen is folded and stitched on both edges to form the strap for securing the parasol when closed. A ring neatly buttonholed is joined to one end, and the other end joined firmly to a seam near the outer edge of the cover. A pearl button serves to hook it over. If a parasol is at hand for examination no one need have any difficulty in re-covering if they possess neatness and patience. After one has covered two or three it is usually



EMBROIDERY MOTIF FOR PARASOL

an easy matter to earn pin-money in this way. Many who would not feel equal to such work themselves, or have no time for it, gladly pay someone else for doing it in order to utilize their old frames, and have exclusive designs which match their gowns.

Many ideas for pretty covers will suggest themselves to clever workers, and an ample supply of these otherwise costly adjuncts may thus inexpensively be prepared as desired.

MAE Y. MAHAFFY.

### A Forget-Me-Not Necklace

[CONTINUED FROM PAGE 13]

for the centers, are used in this forget-me-not chain.

Take a two-and-one-half-yard length thread of strong linen or silk, and wax it good; on each end thread a No. 12 needle. Clasp can be purchased at a jewelry store to which the double thread is securely fastened, leaving the two ends free. Fasten this to a table or something to hold it taut while the weaving proceeds.

Take up two blue beads, pass second thread through them in opposite directions from the first thread, and draw them in place close up to the clasp. Next take up a yellow bead, passing each thread through it in the opposite direction, then two more blue beads, and thread as before. Next, with the right hand thread take up two blue beads and pass the same needle through the two top beads, then two more blue beads, passing the needle through the two bottom beads, thus completing the flower. Care must be taken to push the beads in place compactly. It is well to thread through the beads twice, thus making them stronger for wear. Repeat the process the desired length for the necklace, one or two strands, as desired, securing both ends to the clasp. For daisies use white beads with yellow for the centers, or yellow with black for the centers. It makes a gift much appreciated by young girls, and a nice one for them to make for their friends.

HEISTER ELLIOTT.

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## Frocks for Summer



No. 737—Embroidered Waist with Chemisette

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 38 inch bust, four yards of twenty-two-inch material, or two and one half yards of thirty-inch material, with seven eighths of a yard of lace for chemisette and cuffs.

No. 738—Seven-Gored Skirt with Tucked Flounce

Pattern cut for 24, 26, 28 and 30 inch waist measures. Length of skirt in front, 42 inches. Quantity of material required for medium size, or 28 inch waist, ten yards of twenty-two-inch material, or eight yards of thirty-inch material.



No. 539—Seven-Gored Outing Skirt

Pattern cut for 24, 26, 28 and 30 inch waist measures. Length of skirt in front, 39 inches.



No. 538—Blouse with Triple Collar

Pattern cut for 32, 34, 36 and 38 inch bust measures.



No. 742—Dart-Fitted Box-Plaited Skirt

Pattern cut for 24, 26 and 28 inch waist measures. Length of skirt in front, 42 inches. Quantity of material required for medium size, or 26 inch waist, ten yards of twenty-two-inch material or eight yards of thirty-inch material, with one and one fourth yards of lace for trimming.



No. 741—Dart-Fitted Eton

Pattern cut for 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three yards of twenty-two-inch material, or two and one fourth yards of thirty-inch material, with two and one half yards of lace for trimming.

## PATTERNS

To assist our readers and to simplify the art of dressmaking, we will furnish patterns of any of the designs illustrated on this page for ten cents each. Send money to The Crowell Pub. Company, Madison Square, New York City, care Pattern Dept., and be sure to mention the number and size of the pattern desired.

Our new spring and summer catalogue of fashionable patterns, containing two hundred of the latest designs that will be appropriate for all occasions, is now ready, and will be sent free to any address upon request.

BOTH the openwork English embroidery and the raised blind embroidery are combined to form the trimming for this very smart summer frock. And this is one of Fashion's latest decrees. Either linen or batiste may be selected for the material. In addition to the embroidery each gore of the skirt is defined with a band of lace insertion, and a row of the insertion heads the pretty flaring flounce, which shows here and there a group of fine tucks.

The waist buttons in the back; in front there are tucks on the shoulders, which at the back extend to the waist line. The neck is cut square, so as to be worn with a chemisette. The



No. 750—Dress Sleeves

Pattern cut for 32, 36 and 40 inch bust measures. Quantity of material required for double-puff sleeve with cuff, two and one fourth yards of twenty-two-inch material, or one and one half yards of thirty-inch material. Material required for three quarter sleeve, one and three fourths yards of twenty-two-inch material, or one and one fourth yards of thirty-inch material. Material required for leg-o'-mutton sleeve, one and three fourths yards of twenty-two-inch material, or one and one half yards of thirty-inch material.

elbow-puff sleeve is finished with a deep, fitted cuff, over which is another embroidered cuff.

The outdoor summer girl will find many occasions when she can wear this fetching sailor suit, for though designed for sailing over the "briny deep," yet it is a practical costume for many outdoor sports. The triple collar and elbow sleeves give a new touch to the blouse. Butchers' linen, duck, piqué, galatea or linen etamine are all good materials to use, introducing a contrasting color for the collar, cuffs and belt.

The Rompers illustrated on this page are made exceptionally full, so that the child may have full freedom in playing, and if the occasion requires it they may be worn over the dress. They are made with a square yoke back and front, to which the material is gathered. The neck is finished with a turn-down collar, and the little garment opens at the back. Each leg portion is finished with a casing through which elastic is run. Any good-wearing, thick cotton material may be used for the Rompers. The old stand-bys, cotton cheviot and madras, are both desirable.

Play clothes for children are al-

ways in demand, and the little box-plaited play dress illustrated on this page is sure to answer a crying need. It's a simple little one-piece frock, and yet it is an extremely stylish little garment. The dress is made with a double box plait in the back, and a broad, single box plait in the front. The fastening is at the left side of the box plait. The dress is finished with a hem; the full bishop sleeves have a straight band cuff.

To the woman who makes her own clothes, and especially those who are handy with the needle, in renovating her last summer's waist, this group of sleeves (No. 750) is indispensable. The most noticeable characteristic of this summer's shirt-waist is in the change of the sleeve over those of last year. Why not use your partly worn waist of last summer? It is easy enough to make a pair of sleeves from this pattern, thereby bring the old waist up to the foremost style of to-day.



No. 686—Child's Rompers

Pattern cut for 1, 2 and 4 year sizes. Quantity of material required for medium size, or 2 years, two and one half yards of twenty-seven-inch material, or two yards of thirty-six-inch material.



No. 685—Box-Plaited Play Dress

Pattern cut for 2, 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, four yards of twenty-seven-inch material, or three yards of thirty-six-inch material.

## NOTICE

The Pattern Department of The Crowell Publishing Co. will hereafter be located at Madison Square, New York City, the center of fashions in this country. This move is made in the hope of giving to the readers of Farm and Fireside a more prompt and satisfactory service. We hope to make our patterns still more fashionable and up to date than they have been before, but every effort will be made to retain and increase the simplicity for which our patterns are famous.



No. 736—Piazza Coat

Pattern cut for small, medium and large (32, 36 and 40 inch bust measures). Quantity of material required for medium size, or 36 inch bust, two and one fourth yards of twenty-two-inch material, or one and three fourths yards of thirty-inch material, with six and one half yards of silk or chiffon ruching for trimming.



## Am I My Boy's Keeper?

**M**R. McCUTCHEON, the cartoonist, whose pictures often are sermons, has a striking illustration in a recent issue of the Chicago "Tribune" that should be studied by every father and mother who is struggling with the boy problem, says the "Western Christian Advocate." The scene is a neat living-room of a well-to-do laboring man. By the table sit the father and mother reading. The gentleman's paper, in a moment of abstraction, has fallen to his side and the headlines are visible, "Boy bandits terrorize; police unable to locate youthful gang which has sprung up in all parts of the city!" indicating the subject of his reading and subsequent abstraction. The picture is attended with the following dialogue:

Father—"Where is Willie this evening?"

Mother—"I don't know, Henry; he went out just after supper. Did you want him for anything?"

Father—"No, I just wondered where he was."

What a sermon here! How many homes does this represent in our country! The boy slipping out after supper, the parents unconscious of their son's absence, and being reminded of the same only by his return late in the evening. The best time to save a boy is before he is lost or in danger. If one tithe the concern that the parents exercise regarding a wayward boy who has immeshed himself in serious trouble had been directed for his improvement while he was still at home and apparently safe, there would be fewer wrecks of young lives.

Whenever we see a group of young men congregated around a convenient grocery corner or saloon, we confess to an inclination to seriously criticize them for thus wasting their hours and destroying their usefulness. But a second thought comes in: these boys seek the street because they prefer that place to home. Why? Not all parents are blamed for the "why." We appreciate the fact that many fathers and mothers are financially unable to furnish an enticing home surrounding for their children. We still insist that many of these young men could be saved, and that by a simple process. Keep the lamp on the center table filled and trimmed, the chimney clean and the light clear. Subscribe for one or two publications that will suit the boy's mind; have always a book or two, of careful selection, within easy reach. Then let the parent give at least a part of the evening to the boy, entering into his reading, his conversation, his play. Tide over those two or three hours between supper and bedtime. We do not claim that this program will furnish a complete solution of the problem. But, in our judgment, there is no more neglected point in the cultivation and safeguarding of the child than just here.

Is this an impractical plea? To some, perhaps, yes; to many, no. If the father or mother is not willing to forego the lodge, the club, the evening spent in selfish pleasure with congenial neighbors, leaving the boy to create his own home environment, which he is unable to do to his liking, then the problem will continue to grow more difficult. A willing sacrifice on the parents' part at this dangerous period will be a valuable asset in days to come when the boy settles down with habits of studiousness and industry, and an inbred love for home. It is not probable that he will then go wrong.

## "God Always Helps"

**T**HE last words which the late President Harper, of Chicago University, spoke before his death were, "God always helps." However wise, however intellectual, however scholarly a man may be, his last thoughts turn to God. God stands at the close of all life. Good men do Him honor, bad men do not. A pure atheism is as impossible as it would be to discolor a rainbow. The atheist admits the being of God in his very denial of His existence. Atheism is a form of insanity. The fool hath said in his heart, "No God." In the last analysis, the normal mind always cognizes God. And to the normal mind this cognition is based on a probable theism.

After Paul had been brought to the light, and reason was left to have right of way, he declared, "I know in whom I have believed." Yes, we know we know. And we know that this God always helps. He may not help us just in our time, but He helps in the end. He may not answer us according to our asking, but it is always in answer according to His infinite knowledge. He may not let us see His face, but He permits us to grasp the hem of His garment. Child that I am, in the kindergarten of Christ's school, I would rather have hold of the garment of the Teacher than see His face. I walk by faith and not by sight. To touch the garment's hem but strengthens my faith. God always helps us when He lets us reach out lame hands and touch Him.—New York Observer.



## Sunday Reading

## Don't Forget

Without the rain, all streams would dry;  
Without the sun, all things would die.  
Without the air, ne'er could we breathe;  
Without God's love we soon would grieve.

Thus by his grace we all do live—  
For all our blessings he doth give,  
And in this lesson we are taught  
That by ourselves we'd come to naught.  
ALBERT E. VASSAR.

## Poverty and Wealth

**P**OVERTY is a burden. Biting poverty is fatal to the development of soul and character, but the human being who is neither poor nor rich, who has felt the sting of want enough to spur him on to healthy effort, but who had not enough of riches to undermine his character, is the one who lives the ideal human life. The road of the poor is difficult. They become embittered. They are exposed to the peril of trespassing against the name of God, of breaking the law that protects property, of breaking the law that each one has a right to his own. For the rich the way is smoother. Under circumstances that are easy it is not hard to be clean of heart.

Poverty is less dangerous than excessive wealth. Mythology holds poverty as a more fertile mother of greatness than wealth. While poverty has its great disadvantages, its dangers, yet it is a powerful stimulant to character. Jesus was born in a stable. His cradle was a manger. His companions were inmates of the barn. Because of his lowly birth he always felt an infinitely close connection for the poor, and his teachings always expressed an infinitely strong love for the poor. Buddha discarded his royal garments and donned the beggar's rags before he became the Messiah of the teeming millions of India. Abraham Lincoln, the great emancipator, rose from the ranks of the poor, urged on by the stimulus of poverty to the pinnacle where his memory rests to-day. In Jewish history the same thought occurs again and again. Look over its pages and you will find that the greatest Jews were sons of poverty.

What is the ruling passion of the day?

To become rich is the sum total of our life's purpose. Those are held to be successful who are rich or who become rich, and those are considered failures who are poor. This passion is like the hot breath that passes over the fields and sears the grass, the flowers and the grain. It is like the simoon from Africa, that dries up streams and leaves suffering and death in its pathway.

Transmitted wealth is a greater peril than self-made wealth. The self-made rich man in the great majority of cases will respect and love the class from which he sprung. He will not be an atheist. He will be charitable. He will give. The making of wealth requires mental capacity, such as is needed by the surgeon, the preacher, the teacher, the lawyer, the inventor and the merchant.

Transmitted wealth results inevitably in moral weakness, moral supineness. It creates a false sense of superiority which plants the seed of resentment in the hearts of the poor. This false superiority is seen most strikingly in the children of the rich, who consider all who have not wealth beneath them. This supercilious cynicism of the gilded youth, who could not earn ten dollars a week if he were thrown on his own resources, is the great menacing shadow which is hanging over our republican government.—Dr. Emil G. Hirsch.

## Little Duties in Everyday Life

**T**O do little things as duties requires large courage. We are so prone to omit the little things as trifles, that before we are aware of it, by degrees, self-indulgence prevails; and these little duties neglected are invariably followed by discontent. The little duties conscientiously performed result in habits which are required to make the most and best of the great occasions of life.

Duties give; rights get; when you emphasize your rights, you are seeking your own. When you emphasize duties, you are seeking the welfare of another. The sense of duty which enables you to put yourself in the other person's place is often the first step toward doing right. The interests of society will not be better conditioned until we are animated by the social spirit which emphasizes duties rather than rights.

Among the first little duties I would mention, on the faithful performance of which so many others depend, is that difficult duty of early rising. Of the ideal woman in the proverbs we are told: "She riseth also while it is yet night, and giveth

meat to her household and a portion to her maidens." Early risers are apt to be regular and methodical.

Have your time fully occupied. Don't dawdle. Take the hours of recreation after and not before you have done your duties. When Napoleon's marshals did not appear at dinner at the appointed time, he began to eat without them. They came just as he was rising from the table. "Gentlemen," he said, "it is now past dinner and we will immediately proceed to business."

When some members of Congress, invited to dine with George Washington, arrived late and showed their mortification at finding the President eating, he said: "My cook never asks if the visitors have arrived, but if the hour has arrived." We can forgive the facetious editor who wrote a tearful "In Memoriam" of one of those unpunctual women, late at meetings, keeping others waiting at appointments, by speaking of her as "the late Miss Blank."

"Better never be late" is a nobler maxim than "Better late than never." If you would attain to what Southey called "the virtue of reliability," you must struggle against putting off till to-morrow what you can do to-day by making the day longer by earlier rising.

With all the earnestness of my being let me enforce the duty of self-denial as a means of strengthening the character and keeping under self-indulgence and the love of your own way. Make yourself a little less comfortable, that others may be a little more comfortable. Keep a conscientious watch on your expenditures. There is a lot of meanness among people of means. Too few of them know what it is to deny themselves. They grudgingly give dimes and dollars to ameliorate the conditions of society, while they recklessly spend hundreds and thousands. As surely as the barnacles eat their way into the oak timbers of a ship and sink her, selfishness eats into and destroys character. The extravagance of people of wealth and their withholding from and indifference to the causes that would make some corner of God's creation a little less accursed is an assault on God and an insult to his claims, and in the forceful figure of another, "as the grass must die to itself before it can live in the ox and the ox must die to itself before it can live in the man, so must you die to yourself before you can enter into a higher life."

Another much neglected little duty is the duty of mutual forbearance, which in the observance or in the breach, none has more to do with the happiness or unhappiness of life. In our hurried lives we are constantly jostling against each other, we are hustled out not only of the little courtesies that sweeten our lives, but oftentimes of the common decencies, the lack of which does so sadden and sour life. Our interests interfere with those of others, and in the pushing of our plans, the enthusiasm of our efforts and the promotion of our self-interests, we are apt to say and do things which injure others.

We loom immensely large before ourselves. We think far more of our rights than those of others; for more of our rights than of our duties. Resentful of the slightest opposition, the small violence done rankles in us, ruffles the heart, until we become revengeful and indulge in our coarse, vulgar "I'll pay them for this;" "they are not done with me;" "he'll find me even with him yet." All this represents the vilest part of human nature. Revenge is sweet only to little minds and small souls. Injure a dog and he will never forgive you, nor will he forget. There are men and women, too, who pose as Christians who out of mere jealousy never miss an opportunity for years of sneering at one or two trivial oversights. Lord Macaulay tells us that there are some unhappy people, "constitutionally prone to the darker passions, to whom bitter words are as natural as snarling and biting to a ferocious dog. To come into the world with this mental disease is a greater calamity than to be blind or deaf." And yet, there are people who pride themselves on this disease, calling their brutality honesty and their spite frankness.

We are taught daily to pray "forgive us our debts as we forgive our debtors," but how often we are like Queen Elizabeth who, we are told, said to the Countess of Nottingham, who confessed that she had kept back the ring by which Essex pleaded forgiveness, "God may forgive you, but I cannot." Our forgiveness must clear itself of all ill will and desire of revenge. It must be like that of the novelist in "St. Ronan's Well," where Clara Mowbray, her life ruined, her

reason dethroned, is summoned to the dying bed of Hannah Irwin, who, never having been wronged, had blasted all her happiness by a lie, but in the hour of death asks for forgiveness. "Hannah Irwin," said Clara, "my early friend, my unproved enemy, betake thee to Him who has pardon for all, and betake thee with confidence, for I pardon you as freely as if you had never wronged me, as freely as I desire my own pardon."

How often our forgiveness is only skin deep. We say we forgive but can never forget; but if we would know the sweetness of forgiveness we must cultivate the spirit of forgetfulness.—MADISON C. PETERS, D. D.

## What Have You Done To-day?

We shall do much in the years to come;  
But what have we done to-day?  
We shall give our gold in a princely sum;  
But what did we give to-day?  
We shall lift the heart and dry the tear,  
We shall plant a hope in the place of fear,  
We shall speak the words of love and cheer;  
But what did we speak to-day?

We shall be so kind in the after-while;  
But what have we been to-day?  
We shall bring to each lonely life a smile;  
But what have we brought to-day?  
We shall give to truth a grander birth,  
We shall feed the hungry souls of earth;  
But, this is the thing our hearts must ask:  
What have we done to-day?

—Technical World Magazine.

## How to Break a Habit

**A** STORY is told of an English minister who offered a prize to the boy who would write the best composition in five minutes on "How to overcome a habit." At the expiration of five minutes the compositions were read. The prize went to a lad of nine years. The following is his essay:

"Well, sir, habit is hard to overcome. If you take off the first letter, it does not change 'a bit.' If you take off another, you still have a 'bit' left. If you take off still another, the whole of 'it' remains. If you take off another, it is wholly used up; all of which goes to show that if you want to get rid of habit you must throw it off altogether."

## Spoiling of the Modern Girl

**T**HE education of to-day is looking in the wrong direction, says Miss Frances Newton Symmes. Everything cannot be expected of the schools. It is hard for a teacher to be condemned for inefficiency because the pupils who graduate from her classes do not possess the sterling qualities which are expected of them, when the mothers of these same young women are not exercising a proper surveillance over them.

The modern summer-resort is one of the worst evils to which the young women of to-day are subjected. Girls of 13 and 14 years old are allowed to receive attentions from boys of their own age, and flirtations are conducted in shocking disregard of the proprieties. The young girls are taken out rowing, invited to dances and live the free life of society belles when they should be romping about in the free enjoyment of untrammelled childhood.

When they return to the city and school is entered the same condition of frivolity prevails. No sooner has the school commenced than the society season is on, and there at once begins a round of dances and balls. Instead of staying at home and studying their lessons young men are allowed to call, and the young society of but perhaps 13 years has her brain occupied with the fitting nothings which drive away all semblance of serious work. No responsibility is felt on the part of the girl and she grows to consider life one endless round of pleasure.

Thoroughness is a lost art for the average inmate of the fashionable young ladies preparatory school, according to the experience of Miss Symmes. The patient memorizing of the days of our grandfathers is an impossibility for the young girl of to-day, for she trusts to the books for that part of her lessons which cannot be learned at a glance.

Nature requires a period of untrammelled freedom for the growing human being. Those restrictions and artificial conditions which prevail in modern society in the case of adults should not be allowed to affect the life of the child. Work and play are necessary; these should constitute the life of the girl of fourteen.

I know that the world, the great big world,

Will never a moment stop  
To see which dog may be in the fault,  
But will shout for the dog on the top.  
But for me, I shall never pause to ask  
Which dog may be in the right,  
For my heart will beat, while it beats at all  
For the under dog in the fight.

—Animals' Guardian, London.

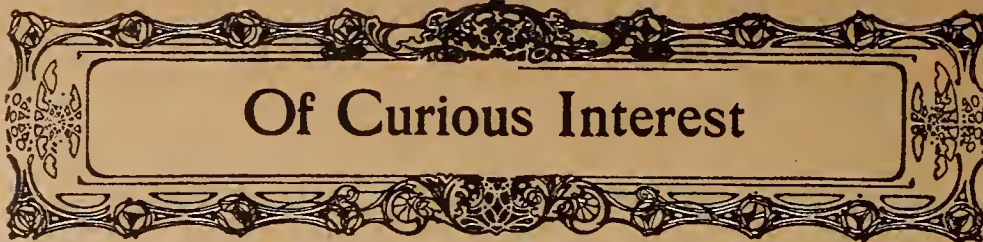


## A Prehistoric Autograph

There is nothing about the appearance of the trim little stone church at Independence, Cuyahoga County, Ohio, to attract the attention of the casual passer-by; yet its walls contain one of the most interesting blocks of stone to be found in the whole country.

This stone was uncovered in a near-by quarry in 1853; and the pastor of the little church, which was then being built, recognizing its archaeological value, had it built into the wall in order to preserve it for generations to come.

When found, the stone was covered with several feet of earth in which large trees were growing; and was originally



## Of Curious Interest

writing found in many places and known to be the work of the Indians—for they were universally outline drawings—and the conclusion remains that if done by man it is an art relic of that remarkable race of people who had entirely disap-

bow down, unaware, before the gods of our pagan ancestors. Thus May-Day rites, which have come to us through Roman and Druidical channels, are remains of a very early worship.

The Druids, on May 1, lighted great fires in honor of Bel or Belen—the Apollo, or Orus, of other nations. In Celtic centers of Great Britain the day is still called *la Bealtine*, *Bealtine*, or *Beltine*, which means "a day of Belen's fire," since, in the Celtic language of Cornwall, *tan* means, "fire," and the verb *tine* means to "light a fire."

In the highlands of Scotland, as late as 1790, the Beltein, or rural sacrifice on May 1, was fully observed. The herdsmen of every village lighted a fire within a square outlined by cutting a trench in the turf. Over the fire was dressed a cauldle of eggs, milk, oatmeal, and butter. Part was poured on the ground as a libation.

Then everyone took a cake of oatmeal, upon which were nine knobs, each dedicated to some divinity. Facing the fire, they broke off the knobs, one at a time, throwing them over their shoulders and saying: "This I give to thee. Preserve thou my horses," "This to thee; preserve thou my sheep," and so on. The cauldle was then eaten.

Traces of fire sacrifice are found in Ireland, particularly in the custom of lighting fires at short intervals and driving cattle between them, and the custom of fathers jumping over or running through fires with their children in their arms. Undoubtedly these acts are modifications of what was once real sacrifice.

The May festival, in its deepest meaning, is a recognition of the renewed fer-

countries. It used to be general throughout England, and the cutting and decorating of the pole was one of the reasons for going a-Maying. Often the pole was left standing until near the end of the year, and sometimes especially durable poles remained erect for many seasons and were used in successive festivals.

The last Maypole erected in London was one hundred feet high, and stood in the Strand. Taken down in 1717-'18, it was removed to Wanstead Park, in Essex, where it was made part of the support for a large telescope which was set up by Sir Isaac Newton.

The May Queen traditionally represents the Roman goddess, Flora.

## Elephant Rock

Near Graniteville, in Iron County, Missouri, nature has created or deposited a group of huge granite boulders, known as "the granite potato patch of the Ozarks." The largest of the group, which has been called "Elephant Rock," is as large as a small cottage, being 22 feet in height and about 35 feet in length. All of the boulders are of pure red granite, and the almost level floor on which they lay is of the same material. There are large granite quarries in the immediate neighborhood, but the "potato patch" has thus far been preserved.

Geologists and other scientists have often visited this group of boulders to determine their age and origin. The general supposition is that they have been rounded into their present shape, resembling potatoes, by the work of erosion. Other students, however, have advanced the theory that they are of glacial origin; that they have been ground and worn round by being carried as detritus in a glacier. Since it is known, or quite fully established, however, that the Laurentian glacier, the most extensive, which traveled southward from the highland north of the St. Lawrence River, covering all the area with a continental ice sheet, did not extend farther south than the Missouri and Ohio rivers, it seems that this theory of a glacier in the Ozarks can be given but very little attention. Then, too, the fact



PREHISTORIC STONE AS IT APPEARS IN THE WALL OF A CHURCH AT INDEPENDENCE, OHIO

much larger, the workmen not noticing its peculiar marking until large portions of it had been broken away.

Its present size is four feet wide by seven feet long. A photograph does not give a satisfactory idea of the interesting markings on this stone. We find footprints of the bear or his prehistoric ancestor; the buffalo, the deer, and the moose.

Not mere outlines of these, but deep impressions, or tracks, such as the animals would make in walking in wet sand; and we find them at regular intervals across the stone as if actually made in walking.

We also find footprints of a large bird; probably made by the wild turkey.

Near the center of the stone is seen the print of a serpent, several feet in length, but not the mark a serpent would make in crawling over the sand, but such a mark as it would leave if it had crawled onto a bed of soft mud and died.

We also find the footprints of several animals not recognized as those of any now living.

There are two explanations given for the appearance of this remarkable stone; one is that these are really the footprints of animals made in sand which afterwards hardened into stone, and were thus preserved; the other is that the marks were chiseled out by the Indians (with what tool is not known), or by a race of people who inhabited this land long before the red men came into control.

The marks do not resemble the picture

peared before the white men set foot on the western continent, and whom we know only by the remains of their interesting labors—the Mound Builders.

The officers of the Western Reserve Historical Society, of Cleveland, have made several attempts to secure this stone in order to preserve it among their archives, but the trustees of the prim little church steadfastly refuse to give it up.

H. M. ALBAUGH.

## The "John Brown Tannery"

The old "John Brown Tannery" was built by the hero of Harper's Ferry in the year 1826, in the town of New Richmond, Crawford County, Pa. Across the road and in front of the tannery, in an orchard, is buried his first wife and mother of his sons who fought so bravely with their father. The building or tannery has been remodeled and turned into a dwelling house. A porch extends the whole length of the front, and two bay windows improve the building's appearance. The lower part is used for a cheese factory. The owner is Captain Austin Cannon.

## May-Day Customs of Long Ago

Customs do not become established without reason says the "SCRAP BOOK." If no meaning is seen in a popular superstition or an annual festival, the significance is that the ritual, as so often happens, has long outlived the belief. In many of our hereditary customs we



"JOHN BROWN TANNERY," BUILT IN 1826, AND LOCATED AT NEW RICHMOND, CRAWFORD COUNTY, PA.

tility of the earth with the returning spring. It is one of the oldest of all festivals. The children who now go a-Maying, or dance around the Maypole, or choose a May Queen, are unconsciously imitating the joyous ceremonies with which the ancients welcomed the new birth of nature. Fertility was among the earliest of religious ideas.

"Going a-Maying" is a very ancient custom in England. Bourne, in his "Antiquitates Vulgares," said:

"On the calends, or first, of May, commonly called May Day, the juvenile part of both sexes are wont to rise a little after midnight and walk to some neighboring wood, accompanied with music and blowing of horns, where they break down branches from the trees, and adorn themselves with nosegays and crowns of flowers. When this is done they return with their booty homeward, about the rising of the sun, and make their doors and windows to triumph with their flowery spoils."

In the "Morte d'Arthur" we find this passage:

"Now it befell in the moneth of lusty May, that Queene Guenever called unto her the Knyghtes of the Round Table, and gave them warning that early in the morning she should ride on Maying into the woods and fields beside Westminster."

Shakespeare, in "Midsummer Night's Dream," alludes to the custom:

No doubt they rise up early to observe  
The rite of May.

The Maypole is still common in many

that the boulders are deposited on a bed of the same material seems to prove that they are of local origin.

The rocks are frequently visited by tourists, and the spot has become quite a favorite resort for outing parties. "Elephant Rock," shown in the illustration, is not only so named because of its immense size, but also on account of its close resemblance, at a certain point on the north side, to an elephant's head, trunk and body.

CHARLES ALMA BYERS.

## Stories of Deer

Stories of deer with rain barrels or water pails on their heads are common enough among Maine and Adirondack guides, but it is left for Europe to come to the fore with a variant. Some huntsmen near Innsbruck came upon a stag with a ladder on its antlers. In spite of this handicap, it made off at great speed on seeing the men, leaping hedges and dashing through the undergrowth as if quite unimpeded. Its mad career was stopped, however, when the end of the ladder caught between two trees. Its struggles were so frantic at the approach of the huntsman's dog that it broke off part of its antlers, and thus freed, made good its escape. The ladder proved to belong to a farmer, who had left it standing against one of his hay stacks. While stealing the hay, the stag had evidently upset the ladder, which had thus become fixed on its horns. Which proves that honesty is the best policy, even for stags.



"ELEPHANT ROCK" AT GRANITEVILLE, MO.—THE GRANITE POTATO PATCH OF THE OZARKS



## An Indian Cart Over 200 Years Old

ON EXHIBITION in the Chamber of Commerce at Los Angeles, California, is a Pueblo Indian cart, or *carreta*, over two hundred years old—probably the oldest ancestor of the modern vehicle in existence. This ancient cart, though showing its extreme age and that it belongs to an antique time, is still quite well preserved, and in 1896 it made a journey of nearly sixty miles on its own wheels. The building in which it is now on exhibition contains many relics of by-gone times, but among them none attracts the attention of so many of the visitors as does this ancient cart.

The history of this antique vehicle is not easily traced, but that it exceeds an age of two hundred years has practically been established beyond questioning. It was obtained by a trader several years ago, from a Pueblo Indian, known as San Alfonso, at the village of Rio De Suca, New Mexico. This Indian, who was a convert to the Catholic religion, was at that time about 85 years of age. He was still using the cart, and he said that his great grandfather had made and used it when a young man. His great grandfather had been a native of Tesuque, a small village about nine miles from Santa Fe, the capital of New Mexico. The cart was purchased from the trader by Capt. Newton H. Chittenden, a noted traveler and explorer of the Southwest, who owned it for several years. In 1896 he donated it to the Chamber of Commerce at Los Angeles, in honor of the election of William McKinley to the Presidency of the United States and had it make the trip of sixty miles from his home at Redland to Los Angeles on its own wheels.

Considering the time at which it was made, and the crudeness of the tools then in use, and especially among the Indians, the old *carreta* shows very skilful workmanship. It is made entirely of wood and is bound together with rawhide thongs. No iron of any kind, not so much as a nail, is found anywhere in its make-up. The body of the wagon, a sort of rack eight feet long and four feet high, is made of cottonwood; the tongue, or pole, of mesquite, and the two massive wheels of sycamore. Each wheel is thirty-eight inches in diameter and about six inches thick at the outer rim. Three pieces of wood, mortised together and hewn so as to make a disk, form each wheel. The hub is very thick and the hole in the center is much larger than the axle. The yoke was lashed to the horns of the oxen with rawhide thongs—a means of hitching still in use to-day among the Indians in some parts of Old Mexico.

CHARLES ALMA BYERS.

## How to Ascertain a Person's Age

TELL the person to put down the number of the month in which he or she was born, then to multiply it by 2, then add 5, then to multiply it by 50, then to add their age, then to subtract 365, then to add 115, then to tell you the amount left. The two figures to the right will tell the age, and the remainder the month of birth. For example, the amount is 822: she is 22 years old, and was born in the eighth month (August).

Then there is another method.

Just hand this table to a young lady, and request her to tell you in which column or columns her age is contained, and add together the figures at the top of the columns in which her age is found, and you will have the great secret. Thus, suppose her age to be 17, you will find that number in the first and fifth columns. Here is the magic table:

1	2	4	8	16	32
3	3	5	9	17	33
5	6	6	10	18	34
7	7	7	11	19	35
9	10	12	12	20	36
11	11	13	13	21	37
13	14	14	14	22	38
15	15	15	15	23	39
17	18	20	24	24	40
19	19	21	25	25	41
21	22	22	26	26	42
23	23	23	27	27	43
25	26	28	28	28	44
27	27	29	29	29	45
29	30	30	30	30	46
31	31	31	31	31	47
33	34	36	40	48	48
35	35	37	41	49	49
37	38	38	42	50	50
39	39	39	43	51	51
41	42	44	44	52	52
43	43	45	45	53	53
45	46	46	46	54	54
47	47	47	47	55	55
49	50	52	56	56	56
51	51	53	57	57	57
53	54	54	58	58	58
55	55	55	59	59	59
57	58	60	60	60	60
59	59	61	61	61	61
61	62	62	62	62	62
63	63	63	63	63	63



## In a Miscellaneous Way

## Old Oregon Trail

SOME weeks ago the people of Seattle, Washington, were treated to a novel spectacle, says the New York "Tribune."

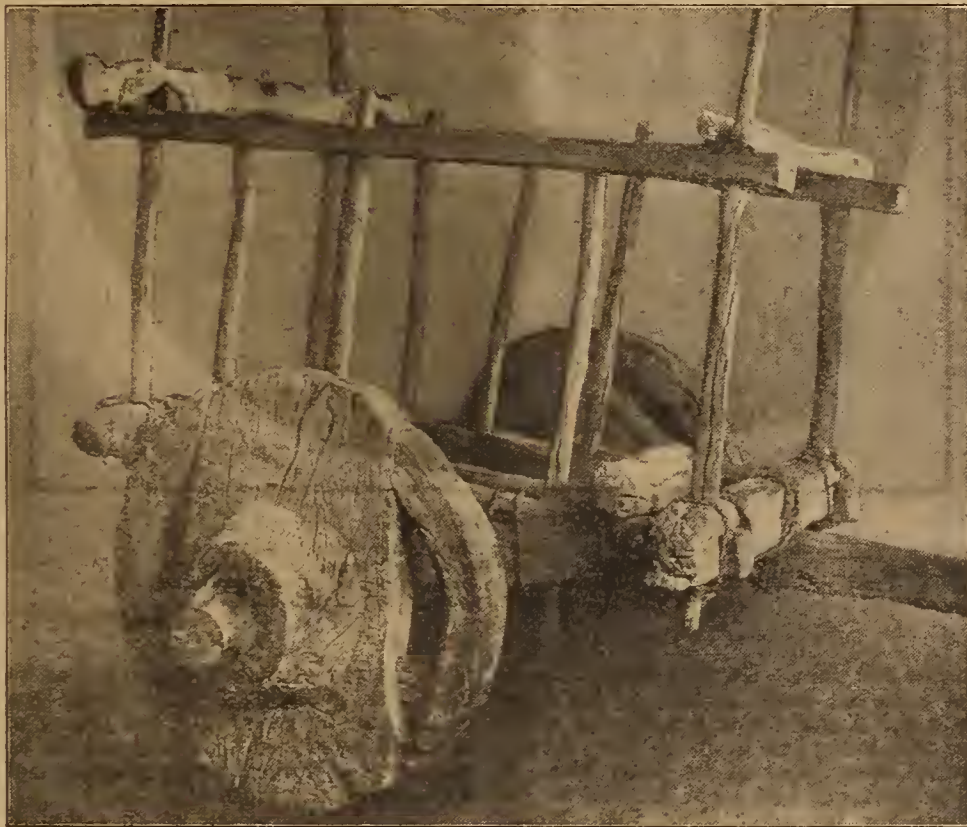
A gray-bearded man and his family rode into town in a reproduction of one of the old prairie schooners drawn by a pair of docile oxen. The company camped for a week in the center of the city, attracting much attention. Then the anachronous outfit started for Indianapolis.

The old man was Ezra Meeker, once known as the "hop king" of the Northwest. In 1852 he journeyed from Indianapolis to the extreme West over the famous Oregon Trail in a prairie schooner. As one of the closing events of his life he is carrying out an ambition to retrace his journey in the same manner and mark the trail with posts so that its course will not be lost. He expects to occupy eight months in the journey, the length of time which the outward journey took fifty-four years ago. The schooner he has especially built for the trip, portions of similar vehicles which were in use in the 50's having been included wherever possible. The body was made water-tight for use in crossing streams.

In journeying up the shore of the Columbia and Snake rivers to the headwaters of the latter, through the South Pass and down the Sweetwater, the North Platte and the Platte rivers, the route of

to the party on the other shore. Before any of the meat could be taken across the river, however, it was devoured by the famished members of the party. With the exception of the spare horse, which had been turned over to the squaw for the transportation of herself and children, there was now nothing left to eat, except three beaver skins. The party was on the point of killing the second animal also when a few members came upon an Indian camp. The Indians fled, leaving a number of horses behind them. Five of the animals were caught. The starving men were soon eating the flesh of one and a messenger was sent back with meat for the other members of the party. This was put over a fire to roast.

To Crooks' men on the other side of the river the preparations for the meal were as tantalizing as a Barmecide repast, for they could see the meat hung over the fire and hear the conversation of the more fortunate ones as they talked of their coming meal, but secured none of it. In a little while they saw with great joy the horseskin boat launched and meat put into it. Slowly, it seemed to them, it worked its way across the swift current which divided the party. It reached the other side in safety, and one of Crooks' company jumped into the frail craft to take it back. As he approached the shore the appetizing odor of the roasting meat reached his



INDIAN CART THAT IS MORE THAN 200 YEARS OLD

the Oregon Trail, Mr. Meeker will find the scenery somewhat as it was when he went over it first. He will meet the Indians, possibly, but he will have less to fear from them, for they have become thoroughly acquainted with the white man. But no bleaching bones of previous travelers will stare up at him suggestively as he trundles down through the beautiful Green River Valley in Wyoming toward the South Pass. And he will not find it necessary to slay horses or dogs, or attempt to secure soup from the soles of old moccasins, as some of the earlier travelers over this route were obliged to do in order to sustain life. He will not meet with the experiences which were the lot of the party that discovered the transcontinental route which became known as the Oregon Trail.

This party had a horrible time while trying to find its way over the continental divide to the headwaters of some river which would carry it to the Pacific, for starvation stared it in the face.

The party was divided into two groups. One, under a man named Hunt, comprised thirty-four persons, including a squaw and two children, aged two and four years, respectively.

In the other were half a dozen persons, under a man named Crooks. The two parties were hard pressed for food. The larger party had only two horses which could be used for food, while the other had been reduced to the extremity of making soup from old moccasins.

One of the horses was killed for meat and to provide a hide with which to make a boat to transport some of the meat across

nostrils, and he could see the juice dripping from the joint. He was overcome. Deliriously he clapped his hands and danced up and down in the hide craft. The boat was upset, and the emaciated man disappeared in the current. He was ultimately saved with great difficulty.

To add to the burdens of the party, the squaw gave birth to a child, which, perhaps fortunately, died in the course of a few weeks. Eventually, by feeding upon horse and dog steaks obtained from the Indians, the party reached the headwaters of the Snake River, in the middle of the winter of 1812, and ultimately the Pacific Coast. Under such circumstances was the comparatively convenient and direct Oregon Trail discovered.

It is proposed to have the line of this trail marked with more substantial monuments than those which Mr. Meeker will erect, for it was one of the great routes of Western migration.

## Fishes Faster than Express Trains

COMPARATIVELY few people have a good idea of the great speed fishes attain in their passing through the waters of the oceans, lakes and large rivers. To find out how fast a certain bird flies scientists set up poles and then note with stop-watches the time the bird requires to cross the interval. To ascertain the speed of a fish is a more difficult feat. The "Saturday Evening Post" explains that estimates have been made showing that the mackerel considering its handicap in size, comes close to being the champion racer.

Unquestionably the mackerel travels sometimes as fast as an express train at

high speed—say at the rate of sixty or possibly seventy miles an hour. Other things being equal, the larger the fish the faster it swims—just as the huge steamship is able to travel at a speed much greater than the little harbor tug.

Undoubtedly the energy employed by a fish of great size, such as a thirty-foot shark, when traveling at its best gait, is something tremendous. An ordinary tug, which represents a maximum of energy in a minimum of bulk, utilizes about two hundred horse-power. Of course it is only a guess, but it would not seem to be over the mark to suppose that a seventy-foot whale makes use of five hundred horse-power when it propels its huge bulk through the water at a rate of thirty miles an hour.

A whale, which is a mammal, and not a fish, might be compared to a freight train if the shark is a cannon-ball express, but it can beat the fastest "ocean greyhound" in a speed contest.

The tarpon is probably faster than the shark. It is believed that a tarpon in a hurry can travel at the rate of eighty miles an hour.

## In Magic May

Behold the magic season, when the air  
Is full of bird song, when the sound of  
bees

Is heard all day in peach and linden  
trees,

And every orchard has a wreath to spare!  
A robe of gold the tasseled birches wear;  
The foam-white shad-blow dances to  
the breeze,

With many a tuft of crimson maple-  
keys,

And poplar's sea-green curls, to make the  
hillside fair.

Thy very name hath magic, maiden May,  
Thy entering footsteps fills the world  
with dreams

Of Flora's feast by old Italian streams,  
Of sport and chase, of dance and garlands  
gay.

In these green courts let all men own thy  
sway!

Here bring their strivings, here their  
plots and schemes,

Till fortune's lure turns to a dewdrop's  
beams,

And traffic's roar is drowned—hush! in a  
wild bird's lay.

—DORA READ GOODALE in "Good House-  
keeping."

## The Story of Niagara

NIAGARA Falls was discovered by La Salle, who became aware of its presence while trying to paddle a canoe up the Niagara river from Lake Ontario. Finding the current of the falls too swift to ascend, he gave up the attempt and constructed the first boat ever built in the United States a little above the falls. He remained in the vicinity of Niagara several months, and came away without having bought a single souvenir postal card or having patronized a hackman, forming a record that has never been equaled.

At the time Niagara was discovered it was in a wild and uncivilized state. Hotel accommodations were very poor and the man who tried to wade over to Goat Island to admire the view was very likely to be fished out of the whirlpool rapids with a broken leg. Shortly after the Revolutionary War, however, Niagara was captured by the hackmen, and has remained in captivity ever since. It has been bridged, tunneled, navigated, swam, tight-rope and gone over in a barrel. For twenty-five cents one may put on a rubber suit and go down behind it and feel its ribs. For fifty cents one may charter an automobile and ramble all around its awful jaws, puffing gasoline smoke in its face. Once the Indians fell on their faces before it and worshiped it. Now the paleface rides up through the gorge in a trolley car, with his feet on the seat ahead and kicks because there isn't a sign in the whirlpool rapids. Once La Salle gazed on it in awe and called it the mightiest work of nature. Now the school-teacher comes from Peoria, Ill., on a \$7.50 excursion and throws ham sandwiches into it as a small boy throws peanuts to an elephant. It is effete, down-trodden and dejected. It has sat for its picture 9,000,000 times and 100,000 brides have dabbled their rosy fingers in its awful maw and have murmured, "How sweet!" It is as tame as a caged lion, and the "Maid of the Mist" puts it through its tricks a dozen times a day.—Scrap Book.

## How Pitiful 'Twould Be

How pitiful 'twere if when one  
Fair rose had blown  
The bush should droop, its bearing done,  
Its vigor flown.

How pitiful 'twould be if when  
We love and lose  
We might not find the way again  
That love pursues.

—S. E. KISER.



## Found His Creed

THE "Christian Register" tells this story of an Episcopalian rector, who, traveling in the South, met a native, also, by his own profession, an Episcopalian.

"Who confirmed you?" asked the rector.

"Nobody. What's that?"

"But didn't you tell me you were an Episcopalian?"

"Oh, yes," said the old man; "and I'll tell you how it is. Last spring I went down to New Orleans visitin'. While I was there I went to church, and I heard 'em say they had left undone them things they'd oughter done, and done them things they hadn't oughter done, and I said to myself, 'That's jest my fix, too.' I found out that was an Episcopal church, and so I've been an Episcopal ever since."

## A Patriotic Response

The teacher of a Brooklyn school in which Germans largely predominate was trying to instruct her pupils in patriotism. To impress the lesson on them she draped a large flag behind her desk and spent some time explaining it to them, and telling them stories of the flag and its defenders. Confident that she had made an impression, and perfectly certain that a call for "The Red, White and Blue" would result, she then said:

"Now, children, that you have heard all about this beautiful American flag, let us sing. What will it be?"

From forty lusty throats came the answer: "Die Wacht am Rhein."—New York Sun.

## The Communicative Barber

A talkative and self-important young court stenographer went with a detailed judge to one of the feud towns in the Kentucky mountains to do his part in holding a term of court.

It was a small place, far from a railroad, and the inhabitants were all feudists of one clan or another. After a day or two at the little hotel the stenographer said to the hotel-keeper, "Where's the barber shop?"

"Ain't no barber shop here," the boniface replied. "We all mostly lets our hair grow."

"But can't I get shaved anywhere?"

"Oh, yes, I reckon you kin. Uncle Joe, down to the cobbler's shop, sometimes shaves folks."

The stenographer went to Uncle Joe's and found the cobbler to be a mild-mannered old man, with flowing gray whiskers and a pale and beatific blue eye.

Uncle Joe said he could shave him, and he got out a razor and a shaving mug. The stenographer sat down on a chair and leaned back. He waited in some trepidation, but the old man was skilful and gave him a good shave.

It was necessary for the young man to talk, so, when the barber was on his throat, he said: "Good many murders around here, ain't there?"

"Well, suh," the barber said, "we don't call them murders. Howsomever, there is some killin's, if that is what you mean."

"Oh, well," said the young man, "I suppose one name's as good as another. When was the last killing?"

"A man was shot out here in the square last week."

"Who shot him?"

The barber brought the razor up on the young man's Adam's apple. "I did," he said.—Saturday Evening Post.

## Her Curiosity Aroused

It was the mayor of a Western city who received the following letter of inquiry from a Boston woman:

"Kind and respected Sir: I see in a paper that a man named John Sipes was attacked and et up by a bare whose cubs he was trying to git when the she bare come



## Wit and Humor



up and stopt him by eatin him up in the mountaines near your town. What I want to know is did it kill him or was he only partly et up and is he from this place and all about the bare. I don't know but what he is a distant husband of mine. My first husband was of that name and I supposed he was killed in the war but the name of the man the bare et being the same I thought it might be him after all an I ought to know it if he wasn't killed either in the war or by the bare for I have been married twice since and there ought to be divorce papers got out by him or me if the bare did not eat him all up. If it is him you will know it by him having six toes

his audience had missed the point of it, said, playfully, "I had hoped, gentlemen, that you would laugh at that." A plaintive voice came through the silence, "I laughed, mister." Then everybody did.—Argonaut.

The man who thinks that he knows all about poker will very likely tell you also that he understands women perfectly.—Somerville Journal.

## Safe

A New York man was stopping for a month at an inland town in Florida. This man is exceedingly fond of swimming, but



## AT CERTAIN TIMES

There is music in the rustle of the zephyr through the trees.  
In the twitter of the sparrow, in the humming of the bees;  
But there's now and then a moment when no melody's a match  
For the creaking of the hinges and the clicking of the latch.

—Arthur Crawford.

on the left foot. He also sings base an has a spread eagle tattooed on his front chest and a ankor on his right arm which you will know him by if the bare did not eat up these sines of its being him. If alive don't tell him I am married to Joe White for he never liked Joe. Mebbe you'd better let on as if I am ded but find out all you can about him without his knowing anything what it is for. That is if the bare did not eat him all up. If it did I don't see as you can do anything and you needn't take no trouble. My respects to your family and please ancer back.

"P. S.—Was the bare killed? Also was he married again and did he leave any proptly with me laying claims to?"—Detroit News.

## Obliging

At a recent political meeting in England the speaker made a jest and, finding that

has a horror of snakes, and this fear kept him from indulging in his favorite sport in the near-by river. He was fishing one day, and mentioned his desire and the barrier to its enjoyment to his guide, a lanky and sorrowful "cracker."

"Oh, I kin fix yo'-all up all right," the guide drawled, and led the way to a beautiful little lake some distance back from the river. "Ain't nary a snake in hyah," he said.

The Northerner enjoyed a half hour's sport in the clear water, and then coming back to the white sand beach began to dress. He then observed that what he had taken to be several logs floating upon the water were in motion.

"Wonder what causes those logs to move?" he said.

"Them ain't logs," his guide calmly replied, chewing on a straw, "them's 'gators. That's howcome there ain't no snakes

in hyah—'gators keeps 'em et up."—Harper's Weekly.

## Made the Bear Work

Bill Winters is one of the heroes who uses his wit to save his strength. During a camping trip in the Maine woods Bill was easily the laziest man in the party.

Finally his exasperated comrades told him that if he did not kill something besides time they would pack him off home.

The next morning Bill borrowed a rifle and went off up the mountain. Two hours later the men in camp saw Bill running down again as fast as he could come, and close behind him was a bear. The men watched the chase with loaded rifles ready. On reaching camp Bill turned and shot the bear.

When the men could stop laughing, one of them said, "Bill, what on earth possessed you to run that distance, with the bear so close, when you might have killed him on the hill and saved your breath?"

Bill smiled slowly. "What's the use of killing a bear in the mountains and lugging him in when you can run him in?" he asked.—Boston Herald.

## Man and Hoss

"I've observed," said Deacon Granby, "man and hoss are much the same; Let 'em know that you're the master and they're likely to be tame; But you give 'em cause for thinkin' that you're anyways afraid And you'll get yourself in trouble just as sure as eggs are laid."

"There was Joe Sykes owned a critter that had never run away, Till Joe's wife was in the buggy drivin' by herself, one day; Well, she got to feelin' nervous, and the hoss, o' course, he knew, So he kicked the rig to pieces, after which away he flew."

"Joe himself was just as honest as the longest day was long, And I reckon that he never had a thought of goin' wrong, Till his wife got fool suspicions and began to fret and stew, Thinkin' that he didn't love 'er and was ceasin' to be true."

"If he spoke to other women she'd be jealous of 'em, so 'Twasn't long before a widow (grass) eloped with Mister Joe! I, of course, don't wish to argue that he shouldn't get the blame, But it only goes to show you man and hoss are much the same."

—Chicago Record-Herald.

## The Political Economist

John Mitchell, the labor leader, was discussing an English financier.

"His ideas of political economy," Mitchell said, "remind me of those of Marshall Saunders, of Braidwood."

"Braidwood is an Illinois town, and I passed my boyhood there. Marshall Saunders had a fine apiary. He raised good bees and good honey. It was a pleasure to visit his neat, well-painted city of hives."

"Marshall had an inquiring mind, and he would sometimes ask himself strange questions. One of the questions he continually asked himself was this:

"Have I any right to rob these bees of their honey?"

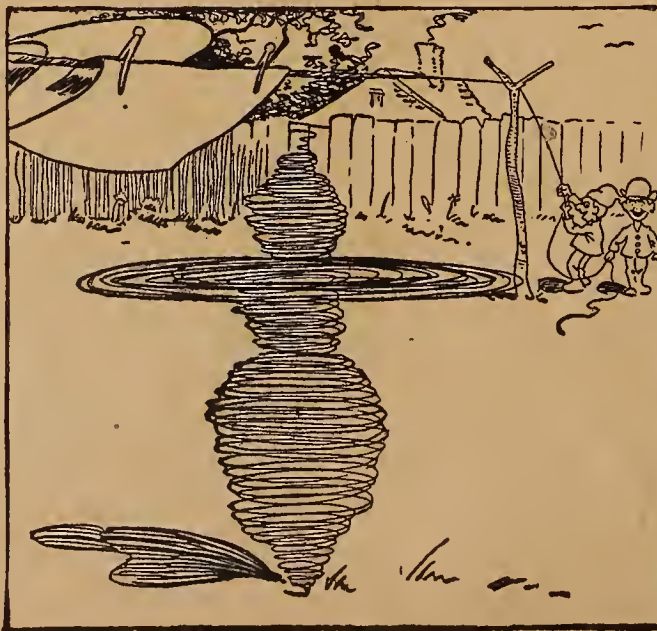
"And for a long time he could not answer that question to his own satisfaction. Finally, though, he found an answer. I heard him tell it to his friends with pride."

"I used to feel mean," he said, "about robbing the beehives, but after thinking the matter over I see now I'm in the right. If it wasn't for me taking the honey, all them bees would be out of work the whole of next summer."—Buffalo Enquirer.

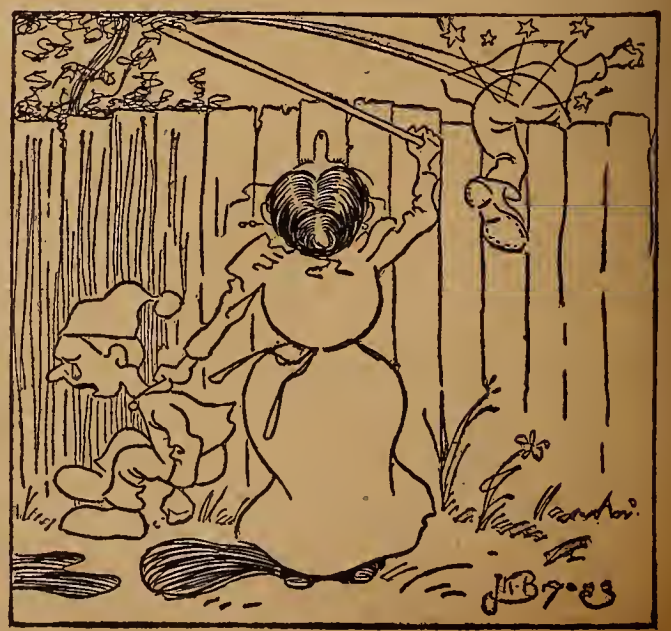
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## A Pedestrian

**D**o you understand the meaning of the word 'pedestrian?' "Yes, sir. A pedestrian is a man who stands on the curb and watches the autos go by and wonders how he'll ever get across the street in time for his six-o'clock dinner.—Cleveland Plain Dealer.

## A Secret

A man who had purchased a fine-looking horse soon discovered that the animal was blind, and after several weeks he succeeded in disposing of her, as the defect did not seem to lessen her speed nor detract from her general appearance. The next day the new owner of the horse appeared.

"Say, you know that mare you sold me?" he began. "She's stone-blind." "I know it," replied her past owner, with an easy air.

"You didn't say anything to me about



ANOTHER WAY OF VIEWING IT

Salesman—"But this pair of pants is not so pretty as the other." Boy—"I know, but these have a thicker seat in them."

it," said the purchaser, his face red with anger.

"Well, you see," replied the other, "that fellow who sold her to me didn't tell me about it, and I just concluded that he didn't want it known."—Philadelphia Ledger.

## Compensation

"Too late!" he shrieked—with bulging eyes. He watched the train pull out—And, overcome, gave vent to rage In one tremendous shout.

"We'd caught the thing in plenty time!" He turned around and said, "But for the hour you took to put That hat on top your head."

"I know it!" happily smiled his wife; "But did you notice, sweet, How everybody rubbered 'round When we came down the street?" —New York World.

One thing about common sense—it ain't common.—Hotel Life, Cleveland, Ohio.

## Businesslike

A large manufacturing concern in the East recently received the following postal, sent from a little country town in the South:

"Dear Sir—Plees sen me yore caterlog of eclectrical battreys.

"Yores truely, "P. S.—You need not sen it. I have change my mind."—Harper's Magazine.

## Found It

Little David had always been regarded by his father and mother as being particularly smart and clever for a child of tender years. One day while he was playing in front of his home a rough-looking



FORCE OF HABIT

City Niece—"Why don't the horse start, uncle?" Uncle—"He used to be a street-car horse in the city; you'll have to give the bell, alongside of the wagon, two rings before he'll start."

tramp appeared, and asked David very sharply where his father kept his money. He replied that it was all in his vest in the kitchen.

A few minutes later the tramp came through the doorway in a hurry, very much battered up and looking sad, muttering:

"Smart kid, that. Never said a word about his old man being in the vest."—Philadelphia Ledger.

## A Correction

'Twas not for want of breath he died, But rather that he misapplied The ample breath he had, I wot. Before he went to bed that night He witlessly blew out the light. The gas escaped; the man did not. —New York World.

After you go through with it two or three times you learn how to fall in love without sustaining any serious fracture.—Philadelphia Telegraph.



## Wit and Humor



## His Mother and Dicky

She's a woman with a mission; 'tis her heaven-born ambition to reform the world's condition, you will please to understand.

She's a model of propriety, a leader in society, and has a great variety of remedies at hand.

Each a sovereign specific, with a title scientific, for the cure of things morbid that vex the people sore;

For the swift alleviation of the evils of the nation is her forordained vocation on this sublunary shore.

And while thus she's up and coming, always hurrying and humming, and occasionally slumming, this reformer of renown,

Her neglected little Dicky, ragged, dirty, tough, and tricky, with his fingers soiled and sticky, is the terror of the town.

—Tit-Bits.

Enthusiasm sets the pace, but common sense wins in a walk.—Chicago Daily News.

## Same Old Town

A traveling salesman whose "territory" lies in the Southwest was one afternoon in the depot awaiting an east-bound train, when a flashily dressed person covered with cheap jewelry came into the waiting room from the platform, where he had been standing since the coming of the last train.

"Well, this old town hasn't changed a bit since I lived here" said he by way of general observation to the drummer and two or three natives of the place. "Everything seems to be just about the same as it was fifteen years ago. Not a particle of change that I can see."

"I reckon that's about it, mister," replied an old fellow who was embracing a stove in the corner. "Your leavin' it don't 'pear to have made much difference in the durned old town."—Harper's Weekly.

## When Adam Was a Boy

Earth wasn't as it is to-day  
When Adam was a boy;  
Nobody's hair was streaked with gray  
When Adam was a boy.  
Then when the sun would scorch and stew  
There wasn't anybody who  
Asked, "Is it hot enough for you?"  
When Adam was a boy.

There were no front lawns to be mowed  
When Adam was a boy;  
No kitchen gardens to be hoed  
When Adam was a boy.  
No ice-cream freezers to be turned,  
No crocks of cream that must be churned,  
No grammar lessons to be learned,  
When Adam was a boy.

There was no staying after school  
When Adam was a boy,  
Because somebody broke a rule  
When Adam was a boy.  
Nobody had to go to bed  
Without a sup of broth or bread,  
Because of something done or said,  
When Adam was a boy.

Yet life was pretty dull, no doubt,  
When Adam was a boy;  
There were no baseball clubs about  
When Adam was a boy.  
No street-piano stopped each day  
In front of where he lived to play;  
No brass band ever marched his way,  
When Adam was a boy.

There were no fireworks at all  
When Adam was a boy;  
No one could pitch a drop-curve ball  
When Adam was a boy.  
But here is why our times are so  
Much better than the long ago—  
There was no Santa Claus, you know,  
When Adam was a boy.  
—Nixon Waterman in Woman's Home Companion.

## Well Recommended

The buxom maid had been hinting that she did not think much of working out, and this in conjunction with the nightly

appearance of a rather sheepish young man caused her mistress much apprehension.

"Martha, is it possible that you are thinking of getting married?"

"Yes'm," admitted Martha, blushing.

"Not that young fellow who has been calling on you lately?"

"Yes'm, he's the one."

"But you have known him only a few days."

"Three weeks come Thursday," corrected Martha.

"Do you think that is long enough to know a man before taking such an important step?"

"Well," answered Martha with spirit, "Tain't 's if he was some new feller. He's well recommended; a perfectly lovely girl I know was engaged to him for a long while."—Everybody's Magazine.

## The English of It

Capt. William Ellinger, the noted oyster grower of Chesapeake Bay, said recently: "Once, in Banbury, I dined with an English farmer. We had ham for dinner, a very delicious ham, baked. The farmer's



SEASONING

Harper's Bazaar

son soon finished his portion and passed his plate again.

"More 'am, father," he said.

"The farmer frowned.

"Don't say 'am, son," he said, 'say 'am.'

"I did say 'am,' the lad protested, in an injured tone.

"You said 'am,' cried the father fiercely.

"Am's what it should be. 'Am, not 'am.'

"In the midst of the squabble the farmer's wife turned to me with a little deprecatory laugh and said:

"They both think they're saying 'am.'"

—Boston Post.

## Glorious Gotham

In New York—Every forty seconds an emigrant arrives.

Every three minutes someone is arrested.

Every six minutes a child is born.

Every seven minutes there is a funeral.

Every thirteen minutes a pair get married.

Every forty-two minutes a new business firm starts up.

Every forty-eight minutes a building catches fire.

Every forty-eight minutes a ship leaves the harbor.

Every fifty-one minutes a new building is erected.

Every fifty-two seconds a passenger train arrives from some point outside the city limits.

Every one and three-fourths hours someone is killed by accident.

Every seven hours someone fails in business.

Every eight hours an attempt to kill someone is made.

Every eight and one half hours some pair is divorced.

Every ten hours someone commits suicide.

Every two days someone is murdered.—Unidentified Exchange.

"George proposed to me in such beautiful language! I wish you could have heard him."

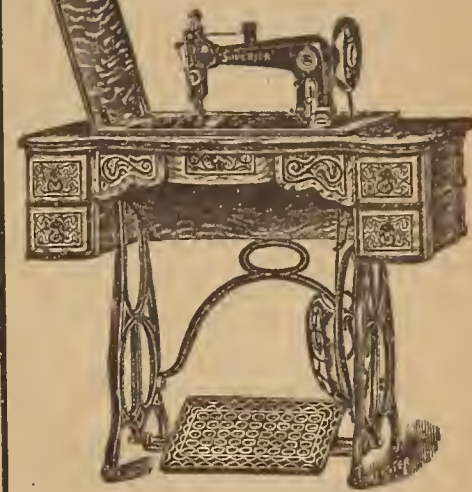
"I did hear him. But he hadn't had as much practice then."—Cleveland Plain Dealer.

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Every machine that we sent out won unbounded praise, proving unquestionably its splendid value. Our subscribers found that they were actually receiving a highest-grade machine for only two fifths the regular retail price. This year we offer a still more valuable machine. The illustration gives some idea of its appearance, showing the *New Curved Front*, a feature that adds very greatly to the handsome appearance of the machine. The wood is solid, polished antique oak. The illustration shows also the *Patent Drop Head*, which is so valuable in a sewing machine, keeping the running parts free from dust when not in use, giving the machine an extremely neat appearance, and keeping the needle and adjustments out of reach of children. The illustration cannot show, however, the invaluable *Ball Bearings* which make the machine run almost at a touch and practically without noise. Nor can the illustration show the unequaled shuttle device, the patent feed, nor any one of a dozen other matchless points of merit. This machine is worth five of the cheap machines which are advertised by some other publishers.

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### Adverse Possession by a Tenant in Common

W. H. D., Pennsylvania, writes: "About thirty-five years ago a man died here without making a will, leaving a widow and three minor children, two boys and a girl. He was possessed of one hundred acres of land. The older boy, W., stayed on the farm, supporting his mother and sister with the proceeds of the farm, paying all taxes and repairs. The younger boy, G., went away from home, learned a trade, and when of age married, and died ten years after, leaving a widow and five children. Next the single sister died, and last the mother died, willing all of her personal effects to W. It is not known whether or not the son G. ever during his lifetime laid claim to any share of the homestead. Now the widow of G. makes a claim to W. for the full half of said homestead for her heirs, she being their guardian. W. refuses to divide, and will not compromise, but claims all of the farm, on the ground of having been in peaceful possession for over twenty-one years. Can G.'s widow recover by any process of law, and if so, how?"

As a general rule, the possession of one tenant will not be held to be adverse to the other tenant. Of course there may be exceptions to this rule, but it will devolve upon the tenant in possession to show that he held the claim the same as his own and with the intention to so claim and use and hold the property. Several things not stated in the above query may exist that might materially change the result. This tenant in possession could hardly have held the sister's interest adverse to her while she was in possession with him. Therefore, as to the sister's interest, the children of the deceased brother would, unless twenty-one years have elapsed since her death, be entitled to the full part of her share. Unless the brother has been dead for at least twenty-one years before the mother died, the children of the deceased brother would have a right to his interest. Taking it as a whole, I would be of the opinion that the deceased brother's widow and children could recover. Of course it will be necessary for them to put their matters in the hands of a competent attorney in the county where the lands are located.

### Right of Persons Having Possession of Child to Retain the Same

A. S., Maine, asks: "A. and B., husband and wife, having two children, parted. A. kept the boy, while B. took the baby girl. B. gave and signed the baby away. A. refused to do so. The parties that took the baby cared for and clothed her without aid from either for five years, A. not seeing her within the time. In case of a divorce, could the parties claim the child?"

The parties having possession of the child would have no absolute right to retain it. This would be a matter that would come up solely for the decision of the court trying the divorce, and if it was for the best interest of the child for the persons who had taken care of it for a long while to retain possession, the court would undoubtedly award them the child.

### Erecting House on Lands of Another, etc.

N. H., Pennsylvania, inquires: "A. let B. build a house on his land without sale or making deed to B. B. got a contractor to furnish the material and do all the labor for the same. After he finished the house B. had no money, and the contractor was willing to take a judgment note on B. if A. would go surety. B. gave a note, with A. as surety. Now in about one year B.'s wife got some money, made before marriage, which was paid on note as part payment. In a short time B.'s wife inherited some more money. This was also paid on note, but did not pay all, leaving a balance of twenty-five dollars. A. said he would pay the balance of the note. B. went into the grocery business, ran it a while, losing money all the time, and sold out. A settlement left him in debt to a wholesale grocery house to the amount of three hundred dollars. A note was executed, and a levy made on B.'s house built on A.'s land. The property was sold by the sheriff to the firm. On the day of sale B. had an attorney prepare a written notice qualified to by B. that he did not have any interest in the property. A. and B.'s wife claim the property. Who is the legal owner?"

The legal title to this property of course has remained in A., he never having parted with the same. But B. had equitable rights which a court of equity might transfer to his creditors, and the court might also in such action take into consideration the rights of B.'s wife, who advanced this money. It will take another lawsuit to settle those questions, where all the facts can be brought before the court. A. can undoubtedly get the balance of the money due him out of the property, and it might be possible that the court would hold B.'s wife subrogated to A.'s rights in the money she has paid to lift this note.

## The Family Lawyer

BY JUDGE WM. M. ROCKEL

Legal inquiries, of general interest only, from our regular subscribers will be answered in this department, each in its turn. On account of the large number of questions received, delay in giving printed answers is unavoidable. Querists desiring an immediate answer, or an answer to a question not of general interest, should remit \$1.00, addressed to "Law Department," this office, and get the answer by mail.

### Query Unanswered

I have an inquiry from Mrs. S. W. D., South Prairie, in which no state is given. As it involves the laws of descent, and husband and wife, no answer can be given. Besides, the query is not very plainly written. Querists must endeavor to state their propositions plainly, and write legibly. Even when properly stated and written, there is enough difficulty experienced in giving the proper answers.



### Liability for Speaking Slanderous Words

A. S., North Carolina, asks: "B. overheard A. slandering a young lady, and, thinking the report true, told a confidential friend, thinking it would go no further. But it leaked out and reached the ears of the lady's father, and he traced it back to B., and B. told him that A. told him. The father then went to A. and he denied it. B. cannot prove that A. said it, as B. did not know the men that A. told it to. The father is going to start a damage suit. What is B. to do, as he is innocent?"

The mere fact that a person believes a thing to be true does not excuse him if it turns out otherwise. It would be an element in decreasing the amount of damage allowed. A person speaking about another is bound to know the truth of that which he utters. Therefore, if you merely assisted in speaking things about another person, which proves to be untrue, you may be liable. In the above case, the only thing that B. can do is to set up the facts, and if he can show that he merely repeated that which was said to him with no malicious purpose, the damage suit against him would be slight. Better not say anything bad about anyone, and then you are always on the safe side.

### Collecting Notes and Not Reporting

A. E. J., Virginia, writes: "A. left sale notes in Ohio for B. to collect and send when due. The notes being due over three months, B. was notified three times to send the money, but has not answered the letters. What can be done?"

I do not know what you can do, except to send the claim to some other attorney and have him collect it. If the party has collected the notes and embezzled the proceeds, he will be criminally liable, and might be sent to the penitentiary.

### Extension of Notes

S. K., Canada, wishes to know: "A. sold cattle to B. B. gave A. note for six months. When the six months was up, B. paid A. the interest on the note. A new note for another six months was drawn up, A. promising B. that when the time for the note is up if B. cannot pay the note he will extend the note for another term of six months. If A. should want his money when the note is due, and B. pays interest, but cannot pay the note, can A. compel B. to pay?"

I very much doubt whether A. is precluded from enforcing collection of a note, merely because interest already due has been paid, for there is no new consideration for this extension. The payment of interest already due is no consideration for a new agreement.

### Repairing of Right of Way Used in Common

A. A. H., Vermont, inquires: "A. owns land through which B. has a right of way. A. uses this road in drawing off his hay in summer and his wood in winter. He has kept the road in excellent repair for years. A few years ago a stone quarry was opened on B.'s land, and the washing of the road has made the road nearly impassable at times for A.'s use. Deep ruts are cut into the road, which brings large quantities of surface water from the higher land above, which runs through A.'s land, doing damage. B. refuses to repair the road in any way. Can A. compel him to do so, and how?"

I do not understand what particular right A. has to use this right of way, which belongs to B., and I do not understand how A. can complain of B.'s use of the

same, unless there has arisen some mutual obligation between A. and B. as to the maintenance and use of this right of way. If it is B.'s right of way, then A. has no particular right to interfere with B.'s use of the same in any manner that B. may see fit in his use of the same. It seems to me that it is very doubtful whether A. can compel B. to repair the road.

### Collection of Judgment

F. T. L., Canada, writes: "In June, 1896, through a lawsuit, A. received a judgment of \$550 in Detroit, Mich. B. only having property, A. took a judgment for ten years. A. is in need of the money. Can B. in any way be compelled to pay the judgment, or can A. only renew this judgment again for a time?"

I see no reason why A. cannot collect judgment, provided B. has any property from which it could be collected. The best thing that A. can do is to put the claim in the hands of an attorney. If B. is located at Detroit, that will be the place to select the attorney from.

### Right to Sell Goods to Pay Debt

M. B. P., Pennsylvania, writes: "A. owes B. a store bill for less than ten dollars. A. packed and stored his household goods and left town for an indefinite time. Can B. sell those goods and give a clear title?"

No, you would not have a right to sell the goods. The only way that they can be sold would be by some legal process. You might sue and get judgment and have an officer make sale.

### Boundary Line Fixed by User

C. H. Z., Ohio, inquires: "A. and B. own adjoining farms. A. has owned his for twenty years, and B. his for six years. The line fence between them is ten feet on B.'s land. B. has repeatedly requested A. to put the fence on the line according to the government survey. He refuses to do so. Can B. compel A. to put the fence on the line? The fence has been rebuilt twice in the last twenty years. Does a fence gain its residence in twenty-one years?"

It depends very much on the intention of the parties, whether or not the boundary line can be fixed by fences erected thereon and keeping it there over twenty-one years. If it is the intention of the parties to put the fence on the line, and regard that as the line upon which the fence is located and continued in that claim, and use it for twenty-one years, then such line becomes the established line between the farms, although it may not be upon the surveyed line. Parties by their own negligence or agreement can change the boundary line. If they so act and do, they can blame no one but themselves.

### Crime of Incest

C. J., Pennsylvania, wants to know what can be done with a man who commits adultery with his own daughter, she being fifteen years of age?

Such conduct by the laws of other civilized states constitutes a crime of incest, and is punishable by a sentence in the penitentiary, bearing in length according to the laws of various states.

### Right of Wife to Collect Money Given to Husband

W. L., Ohio, asks: "A. owned a farm and borrowed fifteen hundred dollars of his wife's father on a mortgage note. Before her father's death he canceled the note as a gift. Can A.'s wife, at A.'s death, collect the same as her own, or will she only receive her maintenance? There is no will and there are four heirs?"

No, I do not believe that A.'s wife can collect any part of this money. It seems to have been a gift transferred to the husband. The only way she could collect it, would be to go into court and say that her husband only held it in trust for her.

### Power to Convey Real Estate

E. N., Ohio, says: "A. inherited real estate; she afterward married and then died, leaving a widower and three children, without making a will, or ever having said real estate transferred from her maiden name. The widower then gave the said real estate to the children, and

one heir bought the other two heirs out. Will he get a good deed?"

I can see no reason why the party would not have a good deed. The mere fact that the property was never transferred from the woman's maiden name would make no difference.

### Right to Manure Made on the Farm

S. L., Ohio, asks: "A. rented farm from B. for money rent without any restrictions as to the disposal of crops; B. sold the farm to C., after A. has harvested his crops, but before his time has expired. A. now holds possession by mutual agreement until April 1st, and all hay, straw and grain belong to A. without reserve. Now can C. claim the manure made on said farm from the date that the sale was made until A.'s time expires nothing having been mentioned about the manure?"

I should think that the manure would belong to C.

### Liability to Pay for Foal of Colt

P. G. J., Ohio, asks: "I bought a mare for driving. She is now with foal. The seller did not tell me that she had been bred. Can the fee for stallion be collected from me? What is the Ohio law on this point?"

By the laws of Ohio the owner of the sire has a lien on the colt for whatever may be due.

### Right of Child to Inherit from Divorced Parent

M. A. B., Ohio, says: "Parties have one child, a girl nine years old, which he helps to support, but has not the privilege of seeing. Can she or her mother come in for a share of his property that he will get of his father and mother at their death?"

The fact that the divorce has been granted between parties does not affect the child's right of inheritance from the divorced parent. The divorced wife might be barred of her rights. This will depend upon the order of the court trying the case.

### Outlawry of Judgment

M. A. B., Ohio, asks: "If a man and wife living in Ohio separate, and she gets a divorce and gets a judgment against him for alimony, will the judgment outlaw the same as any other judgment, or is it perpetual to be brought against him at any time he does get property?"

The statute of limitation in Ohio does not run against a judgment; it can be kept alive indefinitely by issuing execution every five years, and if it becomes dormant it can be revived by motion in court.

### Age for Child to be Sent to School

E. A. F., Ohio, asks: "How old does a boy have to be before he can stop school? What part of a man's property does the widow inherit after they have made what they have themselves, and the children are all married and gone?"

By the laws of Ohio, parents are required to send their children to school until they are fourteen years of age. A wife gets a life estate in one third of her husband's real estate after his death, and a reasonable year's allowance, also one third of the personal property. It makes no difference who earned the property.

### Collection of Claim for Keeping Brother—Fraudulent Deed

G. J. M., Ohio, writes: "A., a bachelor, has three brothers and one sister. He owned two farms, one of sixty-three acres, on which he lived, and one of one hundred and eighty-nine acres. B., his eldest brother, and his family have made their home with him for twelve years. There was no contract of any kind between them as to board or rent, but each furnished meat, flour, potatoes, etc., and each kept cows. B. did the milking, and the product of the cows was used for groceries, etc., for the family. B.'s wife did the household work. Can B., on the death of A., collect from the administrator a bill for boarding A. for twelve years or any other number of years. Six weeks before A. died he had a paralytic stroke, and his speech was so affected that it was difficult to understand him. The day before he died B. sent for a justice of the peace, and had A. sign a deed conveying to him the sixty-three-acre farm. Would a deed made under these conditions stand if contested? In other words, can a person who is half dead transact any business whatever?"

I do not believe that A. can collect for this bill, as the presumption would be that the same was paid by mutual arrangement, but I am of the opinion that the deed would not be invalid, necessarily, from the facts stated, as a person may be partially paralyzed and yet fully understand the transaction.

*Wm. M. Rockel*



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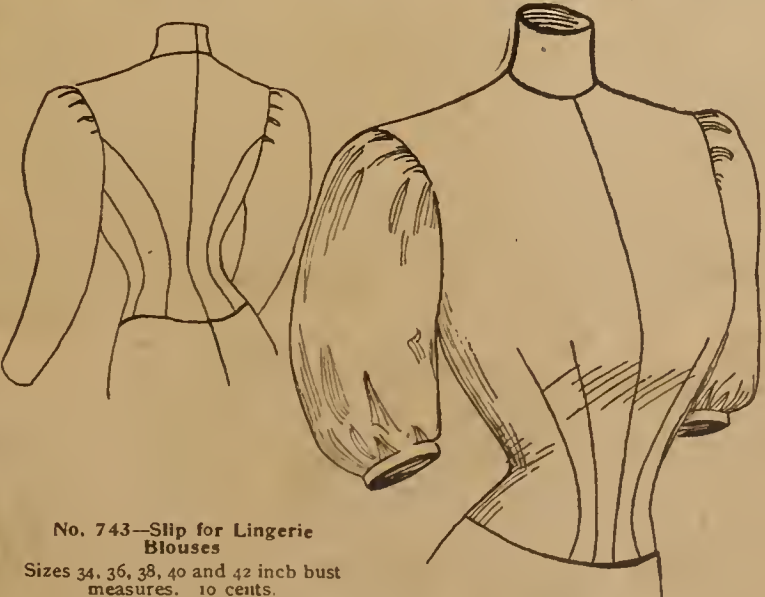
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## Farm Selections

A "sure-enough" cabbage patch is that on Young's Island, South Carolina. It contains seven hundred and eighty acres.

According to the "Board of Trade Journal," nearly seventy million pounds of butter were exported westward from Siberia in 1905.

North Dakota is the leading flax-seed-growing state. Minnesota is a close second, and South Dakota occupies the third place with a production of four and one half million bushels.

The Maryland and New Jersey truck farmers are insisting upon charging the canning factories this year nine dollars a ton for tomatoes, instead of six to seven dollars, which was the price last year.

Prof. R. F. Smith, of the Texas Agricultural College, at College Station, who is the owner of a one-thousand-acre farm on the Brazos River, has planted one thousand pecan trees, and will set two thousand more next spring.

There are fifteen hundred acres of strawberry plants in the vicinity of Cullman, Alabama. The two leading early varieties are the Klondike and the Lady Thompson. The medium ones are the Cumberland, Buhack and Aroma, with Gandy for a late variety.

The Oklahoma Farmers' Union now has a membership of sixty thousand. The sum of one dollar from the value of each cotton bale sold is to be set apart for the building and operation of a cotton mill. This seems to be a move in the right direction.

The fifty-three beet sugar factories in the United States worked up 341,075 acres of sugar beets in 1905. Two factories in Canada and one in Alberta in the Northwest provinces had 14,000 acres in beets. The output of sugar in 1905 was 22,000,838 pounds.

The Canada Experiment Station at Guelph has, after sixteen years' experience, demonstrated the fact that where special care is taken to keep the seed pure, the same varieties of grain, potatoes etc., can be profitably grown without change of seed procured from other localities. The country around Guelph is particularly well adapted to growing.

### Sweet Clover for Inoculation of Soil

In these days of high-priced lands (in Illinois from \$125 to \$200 an acre) farmers cannot afford to raise an average crop of grain, grass or hay. We must do better than that. Our forefathers made the mistake of taking all from the land, without putting anything back, and it goes without saying that one cannot forever check against a bank account; he must occasionally make a deposit, or some day his checks will go to protest.

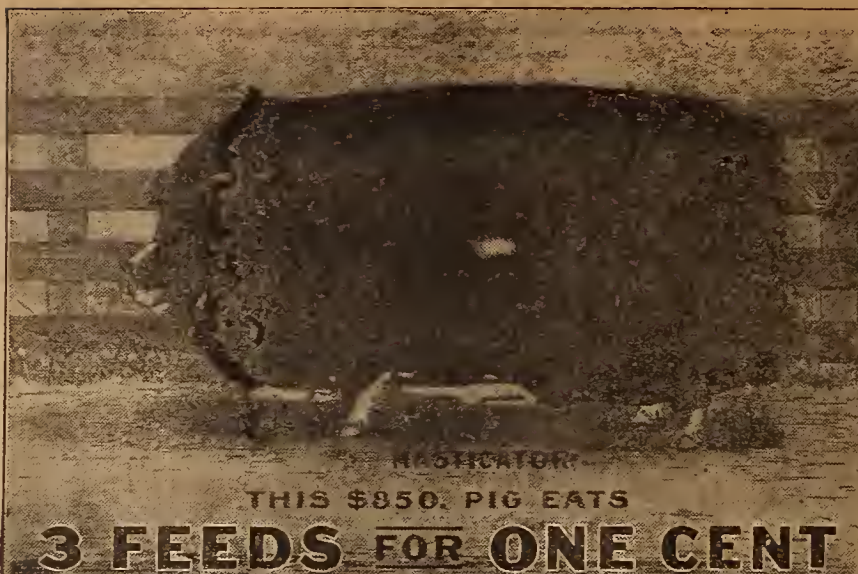
So with farming. For three generations in the Middle Western states we have called on the land for crops, and it has responded nobly. Now the fourth generation finds that the productiveness of the soil is declining.

We must aid nature. We must not waste anything that will help to fertilize the land. Many farmers burn the corn-stalks in the spring before plowing. This is a mistake. The stalks should be cut in short pieces with a stalk cutter and plowed under. The decaying stalks add a little to the fertility of the soil.

However, when we have carefully saved all the manure from the stables and yards and spread it evenly on the land with a manure spreader, we have not enough to cover the whole farm. Here is where clover and the legumes come to our aid.

Sometimes it is necessary to inoculate the soil with bacteria in order to grow clover or alfalfa. The government will supply small quantities of bacteria to applicants. To those farmers who find sweet clover growing by the roadside or in fence corners, I would say, "Take the top three inches of soil where there is an ample growth of sweet clover and scatter it over your fields, and what many have termed a pest can be used to inoculate the soil with bacteria.

Sweet clover has an immense root growth, sometimes extending eight feet in the ground. These roots are covered with nodules filled with the bacteria that store up the nitrogen needed for the soil. Clover will follow it with a rampant growth, and the increased yield of grain on land thus treated will amply pay for all the extra labor. W. S. ELLSWORTH.



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orderbuggy is at least 33 1-3% better than a stock buggy—want to tell you why the finish is better—why the workmanship is better—I want to tell you why you will be better pleased with it all the time you have it.

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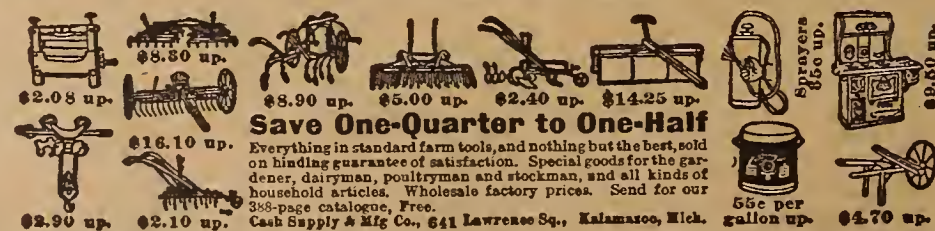
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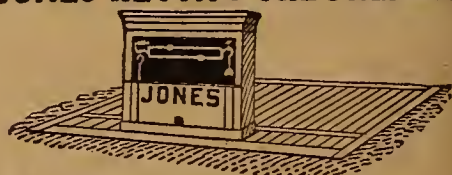
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## Around the World Travel Letters

By Frederic J. Haskin

### ITALY

ITALY is another country where they who cling to the soil for support find the problem of life a hard one. After becoming acquainted with conditions as they existed for so long, it is not difficult to understand why the patient, hard-working peasant, often wearied of the unequal struggle, becomes a brigand or an emigrant to America.

About one third of the population of the country is still engaged in agriculture. The system of land tenure is so complicated that it is impossible to describe it by the method in effect in any one locality. Even one estate will sometimes be worked in three or four different ways at the same time. The three principal forms of tenure are small holdings worked by the owners, the share system, and cultivation by hired labor. Each of these plans will meet so many alterations that every province, almost every estate, will have some peculiarity of its own. Generally speaking, it can be said that the farmers of northern Italy own their land more often than any others, those of Tuscany and central Italy work on shares, while those residing in the south are more given to working for wages.

By the share system the tenants are each given a separate field to work, and the crop is divided equally between the peasant and the owner of the soil. While the fields are not always the same size, each man generally has about thirty acres. Each peasant has his house on his own claim. These houses are generally large enough to give the family plenty of room. While they are not as clean as the average American farmer's home, they are so much of an improvement over the domicils of the country people of India and Egypt that they may safely be said to be a medium between the East and the West. A farmer who is working on shares rarely has enough land to need extra labor. He tries, however, to get sufficient to keep all his family busy.

The Italian farmer raises a mixed crop, so that his time is employed during the whole year. Principally, he raises wheat, grapes and olive trees. To do this he must have considerable knowledge about the conditions of the soil and what may be expected of it. You will often find the most ignorant-looking man an expert in such matters. He knows what to plant in damp ground and what will grow best where it is dry. He knows that wheat and flax will not thrive on the same kind of soil, and that his grape-vines must be exposed to the sun. He is enabled to select the place best suited for grass as well as for hemp. Where irrigation is necessary he manages a network of ditches and hillside terraces with much skill.

He labors hard at all seasons. As the grape harvest approaches he may have to

sit up all night to protect his vines from thieves, and work all the next day in looking after some other crop. Thrifty farmers will quite often be found engaging in subsidiary occupations. Some will breed a few calves, others will raise pigs and poultry, and still others will derive quite an income from the culture of silkworms. The women are industrious and earn money by spinning. In some localities the young girls earn their pin-money by plaiting straw.

The arrangement between the farmer and the landlord is hardly ever the same in two localities. One tenant will tell you that in addition to half of the produce he must give his master a certain number of hams and chickens, and his wife has to do the washing for the landlord's household. Sometimes he is paid extra for work that directly benefits the owner of the land, and again he is required to de-

through a crop failure or adversity he is unable to make both ends meet. The term of a share arrangement is generally one year, but generations of one family often continue on the same soil until they are practically secure in their tenure.

This system undoubtedly has a great many advantages. Instances are found where a generous, tactful landlord has made his tenants feel like the arrangement was really a partnership, and that half the soil belonged to those who worked it. Feeling himself part-proprietor and on a basis of equality with his master, gives the farmer some of the dignity and self-respect felt by the freeholder. On the other hand there are spendthrift landlords who ruin themselves and their tenants by their extravagance and neglect. Southern Italy has suffered much from owners who rarely visited their estates, and forced their overseers to bleed the peas-

are of frequent occurrence. There is nothing that so adds to good character and respect of law as the sense of proprietorship, and next to this is the satisfaction felt by those who are permitted to share in the profits of the work they do.

A people who are not educated are almost certain to believe in the power of witches and the virtue of spells in curing disease. Italian folk-lore affords almost as much superstition as one finds in Egypt or India. It is believed that a cold cannot survive the charm of sniffing coal-dust up the nose. The remedy for one disease is supposed to consist of the act of jumping three times over a skein of boiled twine; alleviation from another trouble may be had by rubbing the affected part with oil that dripped from the framework of a church bell; and the dandruff from the head of a child long unwashed is supposed to have virtue as a curative. Many of the nostrums prescribed by the ignorant quacks are harmless in their application, while others are extremely injurious to health.

The culture of grapes and the making of them into wine is one of the characteristic phases of Italian farm life, and one of its most picturesque features as well. The vintage in Italy means as much and more than the harvest does in America. On the first day that the grapes become ripe enough to pick, all the peasants, and even the landlord's family and their guests, go to the fields with baskets and scissors. From the small baskets the ripe fruit is transferred to large ones, which are conveyed to the vat house. When the vats are filled the fermented fruit is stirred by bare-footed boys wading in it. They sing and laugh and have a great romp at the task. Several qualities of wine are produced by different processes, and during the whole time of the vintage the occasion is observed as a sort of festival. All the residents of the estate meet on common terms and mix with the best humor. There is much merrymaking, singing and dancing.

Nearly everyone in Italy likes to hunt. In fact the nimrods have been so numerous and the slaughter of all kinds of game so common that there is not much left in the country worth killing. The hunter who comes back at night after a day's tramp, with a rabbit, a pair of snipe, and six or eight small birds, feels that he has accomplished much. He will take a shot at anything that flies, killing even sparrows, tom-tits and larks. The crops suffer much from the destruction of all kinds of birds, but the country people seem to think that what they lose from this source is made up by what they put into their stomachs.

The greatest destruction has resulted from the practice of catching birds in nets, [CONCLUDED ON PAGE 5]



A COUNTRY ROAD NEAR ROME

vote a certain number of days during each quarter to such service without pay. The oxen used on the farm are jointly owned by both parties and each provides half the feed.

The farmer has to maintain all the expenses for regular cultivation, but the landlord pays the taxes and makes all big improvements, such as fencing, planting young trees for new orchards, etc. If the tenant is unable to pay his personal tax, his landlord is supposed to advance it for him and take it out of the next crop. It is also customary for the owner of the land to insure the credit of the peasant, if

ants of all they could be made to pay. One objection to the share system on a small scale is that there is no room for the sons, and as fast as they grow up they must either become day laborers or go away from home.

In that portion of Italy where the farming is done by laborers who have no interest in their work other than their salary, the standard of living and morals is very low. The people live in miserable, filthy hovels, and on account of their poverty learn to envy and hate their masters. Bands of sullen wretches levy tribute from the well-to-do, and horrible crimes



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## Comment

### Senator Aldrich and Free Alcohol

THE free-alcohol bill which passed the House of Representatives by an overwhelming majority—only seven votes being recorded against it—has been waylaid by Senator Aldrich, Chairman of the Senate Finance Committee, which now has the bill in charge.

In his message to Congress embodying the report of Commissioner Garfield's investigation showing "that the Standard Oil Company has benefited enormously, up almost to the present moment by secret rates, many of these secret rates being clearly unlawful," President Roosevelt fixed a searchlight on Senator Aldrich and his committee. As a necessary measure to provide for competition against monopoly prices for kerosene and gasoline the President recommended the immediate passage of the free-alcohol bill.

Senator Aldrich says that it is too late in the session for any action by the Senate "based on wise principles," and that he finds it necessary to have extensive hearings on the bill on account of the "faulty work done in the House." It seems clear that he intends to defeat the bill if possible. Young John D. Rockefeller's father-in-law now stands in a searchlight glare, acting as if he represented Standard Oil instead of Rhode Island.

The issue over the liquid fuel supply of the country is now sharply drawn between the American farmer and the Standard Oil Company. Farmers, there is one thing to do—"do it now." Write to the senators from your own state, asking where they stand on this issue, and back up President Roosevelt's recommendation by demand-

ing immediate action by the Senate on the free-alcohol bill.

Citizens of every town and city in the land, you are interested in this bill. For homes, stores and factories you buy fuel, light and power. The local fuel and gas corporations which supply you have, very generally, adopted the policy of Standard Oil of extracting from you every dollar possible. Write immediately to your senators, and find out whether they are with you on this measure or with the Standard Oil monopoly. If they are not on your side in this matter, they will be against you on every issue that comes up between the great corporations and the people.

## Standard Oil Investigation

The testimony taken by the Interstate Commerce Commission for its forthcoming report to Congress on the Standard Oil Company unfolds a tale of deceit, intrigue, trickery, bribery, perjury, chicanery and criminality unsurpassed by any story of the "System" told by novelist or magazine writer. Witnesses of years of experience in the employ of the company disclosed under oath a black record of Standard Oil corruption in carrying on its business and wrecking its competitors.

A few of the things revealed by their testimony are: Bribery of railway employees; secret rebates and preferential freight rates obtained under threat; illegal railway passes; a complete spy system on the business of competitors; deception and double-dealing through dummy companies formed to wreck independent dealers; secret rebates to oil dealers; bribery of factory employees to put grit in lubricating oils bought from competitors; drawing two or three grades of oil from the same tank; selling from 205 to 208 gallons from a 200 gallon tank; tricks taught by instructors for making comparative tests of oil; deliberate debauchery of honor, and training of employees in disreputable practices to aid the company in crushing competition and monopolizing trade.

In his testimony Mr. Wilhoit gives a glimpse of the inner workings of Standard Oil and the results of pressure on its agents to "get business." Answering questions by the commissioners, he says:

"What would happen when the Standard Company thought the independent business was growing too large?" was asked.

"I would frequently get a letter telling me that a certain consignment of oil had been sold by independent dealers in my territory, and the letter would state flatly that there was no reason why I should not secure that business."

"What did you do upon receipt of such a letter?"

"I went out and got the business."

"How did you do that?"

"Oh, in different ways. One way was to sell different brands out of the same tank—that is, sell the same oil as different brands. For example, I have drawn headlight oil, perfection oil and water-white oil out of the same receptacles. It was all the same oil, but getting so many different kinds from one and the same tank enabled me to make the prices such as would secure the business away from the independent dealer."

"Did you do that under instructions?"

"Yes. It was one of the tricks which you learn in the business. As you grow up in the employ of the Standard Oil Company you also grow in the accomplishment of dirty work. It grows upon you so insidiously and gradually that you are not aware of the fact, and before you know it you are accomplished in all the dirty tricks that can be devised. Why, the best man in this court-room would be of no value whatever to the Standard Oil Company unless he had grown up in its business and absorbed all of its dirty methods so he had become adept in them. It became so bad that I finally resigned from the company out of respect for myself and my family."

Under its marvelous organization every employee of the company, from 26 Broadway down to the commonest tank-wagon driver, is under constant surveillance and perpetual pressure to "make good," to "produce results," to "get business," or to get out. Everybody works. Standard Oil, therefore, profits inordinately, not merely by the trade schemes devised by the great brains in its head office, but by all the various methods, tricks and deceptions originated by tens of thousands of employees. Think of this great company pilfering from its tank-wagon customers by the petty cheat of short measure.

No other business in the history of the world ever developed to such perfection

the art of cultivating evil in a multitude of minds. It has actually become an academy of crime. According to its standard of ethics and practice, there is no distinction between right and wrong in the oil trade.

In its debauchery of honor, its training in anarchy, and its remorseless rapacity for the accumulation of vast wealth and power in the hands of a few, Standard Oil is a menace to civilization. Under the glamor of success, its influence for evil has spread far and wide. Divines and university chancellors have become its servants and apologists. Already it has many imitators. But if all great businesses in this country adopt and follow its corrupt methods without hindrance, within three generations some Gibbon would be writing the "Fall of America."

Self-preservation is an instinct of nations as well as of individuals, and it is now manifest in the active efforts of the people of this country to destroy the evils that burden them. Agitation, investigation and anti-graft legislation are the hopeful signs of the times.

It is said that corporations have no souls, but the moving force of every corporation is the mind of its master; and Rockefeller is Nature's great experiment in the business world of "genius without a conscience."

## Liming Land

In the work of restoring fertility to worn-out soils the first thing usually necessary is to correct soil acidity in order to make it possible to grow good crops of clover or other legumes. The treatment for an acid soil is, generally, an application of fresh-burned lime. Caustic lime promptly neutralizes the acid, but it also rapidly liberates plant food by decomposing both organic and mineral matter. It burns up the humus and acts as a soil stimulant; and temporarily increases crop yields by rapid soil impoverishment. Used without caution, it does harm.

Professor Hopkins, of the Illinois Experiment Station, has demonstrated that soil acidity can be corrected by heavy application of ground, raw limestone, without incurring any risk of the harm involved in the use of caustic lime. From tests by the station he recommends the use of at least two tons per acre of ground limestone, applied previous to sowing legumes. For best results he advises that it should be applied after plowing, say for corn, and mixed with the surface soil by disking or harrowing; and that the corn be followed by cow-peas or soy beans, or by wheat or oats and the land then seeded to clover.

*J. B. Barnett.*

## Birds and Butterflies

Nature has given to the writer a very tender heart, and sentiment in generous quantity. I love birds. I love butterflies. I have admiration for and sympathy with every living thing, and this simply because there is something sacred about the mysterious thing we call life. I have always been averse to taking life wantonly. I am opposed to boys handling guns, even of the toy kind, because this practice fosters habits of the sportsman, and destroys the natural tenderness of heart and sentiment. What a dreary abode this world would be without the birds of the air, and the butterflies, and snakes, and bugs, and frogs, toads, fish!

Yet necessity knows neither law nor sentiment. We often find ourselves in the situation where, in order to protect ourselves and our property, kill we must. Beautiful as the butterflies, and some of the bugs are as they fly through space, we often have to destroy them at a wholesale rate, and by most horrible methods. Certain birds also at times become so destructive that there seems to be no way out but to reduce their numbers. The FARM AND FIRESIDE does not care to suppress truth even if unpalatable, or "gall and worm-wood" to a particularly sensitive reader. I have said in these columns and elsewhere, many good words even for the English sparrow. We have this bird here in moderate numbers, and it does us no harm. I therefore do not object to, but rather enjoy its presence, especially during the long winter when bird life is ordinarily rare with us. Yet in my boyhood days I have seen this same bird so destructive when it

descended on the wheat-fields in flocks numbering thousands that I joined in its persecution with zest, and industriously shot, trapped and snared it without hesitation. With it, as with the robin and other birds, it is mostly a question of circumstances, and especially of numbers. But we should never destroy any of these creatures—unless we have to.

## Fraternal Insurance Associations

The various mutual benefit or fraternal insurance associations have recently had a trying time. They have finally come to understand what has been plain to many of us for a long time, that their original plan of low assessments and of leaving it to a supposed rapidly and continuously increasing membership of young people to take care of the future liabilities of these orders was wrong, perhaps in a sense dishonest, and certainly unsafe. This is a simple arithmetical problem. An association cannot pay to the average member, at his death, \$1000, unless the average member has paid to the association, during the period of his membership, the full amount of \$1,000 besides the expense of doing the association's business.

The man who expects to get something for nothing usually gets nothing. It seldom pays to buy cheap goods. Cheap insurance is unsafe insurance. For any of these fraternal insurance associations there is no other alternative. They must put their rates high enough so that the average member pays the full amount of his beneficiary certificate and something besides, or they will be unable to pay to the beneficiaries of the deceased member the sum they agreed to pay. I belong to one of these associations, and my assessments under the new rate plan are high, as they are for all older men under any safe insurance plan. What I want is safe protection. The association which puts its rate just high enough to be safe deserves credit rather than abuse.

*A. Greiner.*

## Make Safe Investments

A western young man says he has saved up a hundred and fifty dollars and would like to place it where he can get a better rate of interest than three per cent. I would rather have a sure three per cent than a risky ten. In almost every locality there are substantial men who sometimes run short of ready cash who would be glad to pay five or six per cent for home money. The thing to do is to find out who these men are and let them know you have some cash to loan. As soon as people learn that a man has cash to loan at a moderate rate of interest he gets plenty of calls for it. One should not be too keen to make his funds earn big money. It is always best to be conservative and keep on the safe side. I have a letter from a man who dropped twelve hundred of his hard-earned dollars into a "rubber plantation" that promised him a competence and more a couple of years ago. He was only one of a large number who bit at the alluring bait, and they sent a man down to investigate and he reported that the "syndicate" had an option on the land, had put up some cheap, showy buildings and had set out a "plantation" of rubber and fruit trees. The buildings were empty, the "plantation" grown over with rank weeds and bushes, and the "syndicate" had gone like the morning mist, and their dollars with it. The nearer one can keep his funds the safer he is. A bank that is perfectly safe loans money at a moderate rate of interest and exacts gilt-edged security. That is just what anyone who has money to loan should do. This young man asks if I would advise him to rent land as soon as he can purchase an outfit and farm for himself, or go into a partnership with someone else. If the "someone else" is a bright, strong, sensible young woman I think it would not be a bad idea to adopt the partnership plan. A live young man with lots of sand in his craw and well reinforced by a sensible young woman, should be able to make things come his way.

*Fred Grundy.*



## About Rural Affairs

### Comfort in the House

**T**O BE pestered with insect foes in the fields, the orchards, the poultry-houses, etc., is a part of our business, and we probably will be thus pestered as long as we attempt to grow farm products. We have gotten used to this as a part of the daily farm routine, and do not feel particularly bad about it. But when we come into the house, we desire to have a chance to enjoy our meals, our visits, our sleep, in peace and comfort. This, however, is hardly possible if the house is alive with flies, ants, bedbugs, fleas, roaches, etc., or with mice and rats. I do not see that I am obliged to put up very long with the undesirable close companionship of any of these pests. When we make proper efforts, it is comparatively easy to keep them out of the house, or to get rid of them after they have managed to get in. If you live right along with any of them in the same house, it is only because you choose to do it rather than to make the efforts necessary to secure relief.

The Cornell Reading Course for Farmers' Wives recently gave quite detailed directions for keeping or driving these pests out of the house. Among other things it says: "Cleanliness should not always stop inside the house, for much can be done by looking after the immediate surroundings of the home. In many cases the hordes of flies, mosquitoes and ants which come into the house breed within a short distance of the doors. Cesspools, drains for kitchen refuse, the often neglected closet, exposed piles of manure and the family rain barrel or tub are prolific breeding sources for mosquitoes and flies. Now that it has been demonstrated that flies may carry typhoid fever germs on their feet and mouth parts, to inoculate food on which they may walk, and that malarial fevers are transmitted only through the agency of certain kind of mosquitoes, much attention should be given to the immediate surroundings of the home to prevent the breeding of these dangerous menaces to health."

Since I have adopted the practice of sacrificing occasionally a quart or two of kerosene by giving a few squirts into the barn cistern, into any pools of standing water that may be in the vicinity, and into the open rain barrels, etc., the numbers of mosquitoes which formerly gave us much trouble and discomfort, have become markedly smaller; and since we look more closely after the manure pile in the rear of the stables, either removing it as fast as made, or letting the pigs root it over frequently and thoroughly, but few flies come to the house to seek admittance, of course, to be met by tight wire screens. The few that finally manage to gain entrance, soon get stuck on the fly paper that is temptingly displayed for their benefit.

### Some Dangerous Moths

What grave dangers may be apprehended from the spread of the gipsy-moth will be seen from a Massachusetts report, saying: "Where the gipsy-moth abounds in residence districts, it not only eats nearly everything green, but it swarms, in caterpillar form, upon houses, walks, and verandas, and often enters dwellings. In residential districts most heavily infested by the moth real estate tends to rapid depreciation, so that it sometimes becomes a matter of difficulty to rent or sell property."

The gipsy situation is fully treated in a recent bulletin (No. 121) issued by the New Hampshire station. It may be true that in Europe this insect is largely controlled by its natural enemies, so that serious outbreaks occur but once in a number of years in any locality, in the same manner as the outbreaks of our native insects, such as the forest tent-caterpillar, or white-marked tussock-moth, which are controlled by native parasites. It is also true that the gipsy-moth in New England now has a number of natural enemies, among them several ground beetles which prey on the caterpillar, several true parasites which attack both larvae and pupae, and a number of birds, notably vireos and cuckoos, which consume large numbers of caterpillars, and chewinks, chickadees, blue jays and crows which feed on the moths to quite an extent.

The station's report, however, is that "as yet the native enemies have not shown ability to materially check the increase of the pest," and "in attempting to control the moth the main reliance must be placed on human effort." So we have come to the same conclusion as in the case of other insect pests, namely, that it is well to forget for a while that there are insect-

eating birds and cannibal insects, and other natural helpers in our warfare against insect pests, and learn the truth and application of the saying that the best help is self-help. "Help yourself and God will help you."

As the most effective of the three single methods of killing the pest the authorities recommend soaking the egg masses, wherever accessible, thoroughly, with cresote mixture. The time to do this is from August to May, and the cresote may be applied with a small swab or paintbrush. This insecticide can be purchased at agricultural warehouses and seed stores, costing fifty cents to one dollar per gallon. For poisoning the caterpillars, spraying with arsenate of lead at the rate of ten pounds to one hundred gallons of water has been found very effective when the caterpillars are small. The poison should be thoroughly mixed in water and applied, if possible, on a clear day, in such a manner as to cover the leaves rather slowly, with a fine mist. The work is most effective when done during May and early June. A loose band of burlap or other cloth may also be tied about an infected tree trunk, but must be examined daily, and the caterpillars which gather under it in the morning, be promptly killed.

Here again the great value of arsenate of lead becomes apparent. We can use it in the fearful strength of one pound to ten gallons without doing injury to the foliage. We have to use it in such strength for certain other insect enemies, as the rose-chaffer, and perhaps the plum curculio, or fail in our designs to destroy them.

Another insect enemy, only second in destructiveness to the gipsy-moth in New England, the brown-tail moth, is the subject of Bulletin No. 122 issued by the New Hampshire station. For destroying the young caterpillars, nothing better than the same arsenate of lead is known; but as the brown-tail caterpillars seem to be much more susceptible to the effects of the poison than the gipsy-caterpillar, three pounds of the poison to the barrel of water are sufficient when spraying in early May while the caterpillars are still young. Five pounds per barrel should be used, however, if the treatment is delayed until late in May or until June. Uninfected trees may be protected by banding. Possibly the most satisfactory and safest substance, says the bulletin, "is printer's ink applied as a band on heavy building paper, beneath which is placed a band of cotton



A CALIFORNIA HOME

next to the bark of the tree to prevent the ink from injuring the tree, and the ascent of the caterpillars in the crevices of the bark beneath the paper."

In regard to arsenate of lead, I fully believe that in it we now have the most satisfactory and most effective of all the various poisons that have recently come into general use for the destruction of farm, garden and orchard pests, and even while conceding that Paris green has slight fungicidal value of its own, I still prefer the arsenate because of its efficiency and safety.

### Spray Injury

As many still complain about the injury done to the leaves of trees, raspberry bushes, etc., by spraying, it may be repeated that there should be enough alkali, whether lime or soda, used to neutralize the acid of the copper sulphate. The formula for soda Bordeaux calls for six pounds of copper sulphate to seven and one half pounds of soda, and even then it might be safer to add a pound of lime. For the ordinary (lime) Bordeaux mixture I would use at least as much lime as copper sulphate, pound for pound, unless I rely (as I usually do) on the ferrocyanide of potassium test. As long as the mixture has an acid reaction, there will be danger of injury to the foliage, and possibly to the fruit, such as apples, pears, etc.

*A. Greiner*

## Salient Farm Notes

### Best Meadow Grasses

**A** MISSOURI farmer asks what variety of

grass is most suitable for hay. It depends largely on what the hay is wanted for. If it is to feed to stock on the farm I know of nothing better than clover with enough timothy among it to hold it up. If the hay is to be baled and sold clear timothy is the grass to grow. It brings the highest price of any hay that is as easily cured and handled. The seed may be sown early in September, or about the first of March. Federal Judge J. Otis Humphrey, the gentleman who dealt so gently with the beef trust recently, said to me a short time ago that he prefers to sow timothy early in September. Then if the winter proves mild he gets a crop the following year. If the winter proves unfavorable and kills it out he sows again about the first of March.

In seeding in the fall it is advisable to prepare the land as for wheat. Plow shallow, pulverize thoroughly with harrow and log, then sow and harrow with the teeth turned well back. A shower will bring the plants up quickly, and they will make a good growth before winter. When the seed is put in well it takes an ugly winter to destroy or heave out the plants. When the seeding is done in spring I have found it a good idea to sow when the soil is checked by frost—that is, when it is frozen so that the surface is raised somewhat, and full of little holes and cracks. Then the first thaw covers all the seed. The old practice of seeding with oats is still good, if the oats are sown very thinly. But most farmers who try this plan want to raise a full crop of oats, and seed thickly. This kills out the grass. If clover is



stalks and pick up the ripe peas. They generally complete this job before wet weather compels him to take them out. During the winter he chops the remaining stalks down and in the spring turns stalks and vines under for fertilizer. He uses a sharp rolling cutter on his plow and cuts and turns everything under in good shape. In cultivating his corn he cultivates very shallow, so the stalks are undisturbed. He reports excellent success with this plan, and says he can grow good crops year after year on the same land. Where cow-peas succeed as well as they do with him I should imagine his plan is about as good as any that could be adopted. In some localities crimson clover makes a good cover crop for the land.

### Pruning Apple Trees

The same farmer says that he has heard that June is the best month in the year to prune apple trees, and he would like to know if it is true. I once asked a man who has about one thousand acres of apple orchard if he had learned when was the best time to prune, and he said he had. "The best time in the whole year is when one's knife is sharp!" He is right. I never have found any especially good time, except for removing water sprouts. The time to remove these is when they are soft and growing. One can put a glove on and strip them off as fast as he can get hold of them, and as easily as he can break pipe-stems. Along the latter part of June and first of July is the time to strip them off. I don't always get it done at that time, however, and then I have to resort to knife and pruning-shears, and take four or five times as much time to it. For years I have never hesitated a moment about removing a branch that needed removing, no matter what time of the year it happened to be when I saw it.

### No Parcels-Post

As I predicted early in the winter we are to have no post-office legislation this congress. The chairman of the House Committee in charge of these matters is Overstreet, of Indiana. He is reported to have said distinctly and emphatically that he will permit no changes to be made in the present one-horse, backwoods methods. He is also reported to have said that a private corporation could manage the mails better than the government. It seems to me that this Overstreet would be an excellent man to leave at home when the plain people can get a chance at him. But as the chairmen of the various committees are appointed by the speaker, and said speaker knows their views on all important matters likely to come before them, it would seem to be necessary to leave out Mr. Cannon also. It is easy to note the fine Italian hand of the express trust in the management of this post-office corner. I observe that the chairmen of all other committees are friends of the interests they are looking after, and are doing all they can to push them along. But for years the chairmen of the committee having post-office matters in charge have bitterly opposed any and all improvement in our present deficiency-making, puerile management of postal affairs. Back of the present chairman is Cannon. Back of Cannon is the express trust. There you have it in a nutshell.

### Agricultural Bulletins

I have been asked many times to state how the bulletins of the Agricultural Department and the state experiment stations can be obtained, and I have frequently done so. The only reason I can see why these queries are repeated is that the thousands of new members who are constantly being added to the FARM AND FIRESIDE family arrived too late to see the instructions I have given. If one wants to obtain the bulletins of the Agricultural Department at Washington he can do so in either of two ways—write his congressman to procure him a list of said bulletins, select therefrom those he desires and send the list to the congressman and ask him to get them for him. This he will gladly do without charge of any sort. Or he may write direct to the secretary of agriculture for a list, then request him to send such as are selected. This will cost nothing but the postage on your own letters. For the state experiment station bulletins first ascertain where the station is located, then write the director for a list of bulletins on hand, select those desired and ask him for them. You will have no trouble in obtaining any of these bulletins if you proceed as above directed. A very few of the bulletins are of little value, but a large proportion of them contain information that is worth many a good dollar to the practical farmer.

*Fred Grundy*



### Saving Time in Haying

**T**HE saying, "Time is Money," is never more true than in harvest-time, and when labor may be saved at the same time the double saving becomes an object worthy of consideration.

Here among the hills of southern Ohio I have all my life seen people in taking up hay clean the windrows all up with pitchforks. I find it a great deal easier to clean up with a horse-rake. My way of taking up hay is to start making "doodles" as soon as my brother gets started raking. I only put a few rakefuls in a place, as it is quicker and easier to haul hay than to carry it. By the time it is all raked I have a large part of it piled. In piling and in loading we take up only what we can pick up in forkfuls. After we get the doodles hauled, we haul the rest from the windrow. Then we rake over the windrows, getting the hay cleaned up much better than by raking up with forks, and saving hay as well as time and labor.

Most farmers around here mow their meadows in small "lands," and take it up as fast as it gets dry enough, in order to avoid getting it wet by sudden rains. This seems to me a waste of time. We don't realize how much time we use up in turning. Then, too, it is much harder on a team to turn than to pull straight ahead. I prefer to mow a field in one land if the lay of the ground will permit, and as is generally the case in this part of the country, the field is not too large. If that makes too much to cut at once I can quit at any time and take up before cutting the rest.

Ohio.

R. B.

### Lightning-Rods

#### A PRACTICAL AND CHEAP METHOD OF PROTECTING BUILDINGS FROM LIGHTNING

To protect a building from lightning use two strands twisted together of heavy, double galvanized telegraph and telephone wire, extra best, No. 4. This is a soft iron wire and not a fence-wire. It has a lower electrical resistance than steel fence-wire.

Run the wire down the edges of the roof to the ground, so as to have all edges provided with a wire. Then make good earth connections at all places where the wire comes to the ground by putting wire in the ground ten or twelve feet. The best way to make this hole is to use a five eighths or three fourths inch iron rod, twelve or fourteen feet long. Stove up one end to make it a little larger, and then sharpen it. Two men can take this rod and make a hole ten or twelve feet deep in a few minutes by working it up and down. Pour a little water around the rod to make it work well. When the hole is the proper depth pull out the iron rod and slip the twisted galvanized wire down the hole.

Connect all wires together, that is, wrap the wire around the connecting piece securely, making a perfect contact. This will give a proper circuit over the building. Put a point at each end, and on all wings or projections; and if a large building, put points in the middle.

To make the points, cut two pieces of the No. 4 wire four feet long, and cut one piece four feet six inches long. Fasten one end of a four-foot board to the floor; place the other end on a box or bench to bring it up convenient to work, lay the three pieces of wire on the board and clamp them to the board eight or ten inches from the bottom end, which should be even. Place a clamp on the other end of the wire. One wire on this end will be six inches longer than the other two; this is for the point. Twist the three wires together, and spread the bottom end that was not twisted for feet to stand the point on. Sharpen the point very sharp, and paint with gold enamel or gold paint, which adds much to the appearance. This soft iron wire will not untwist very much after it has been twisted up.

If the building has a metal ridge-board, made from galvanized strips, the ground wires can be attached to it and the points nailed onto the metal ridge. The points are held in place by nailing strips of galvanized sheet metal over the feet. Spread the feet so the point will stand firm on the roof.

In reply to a question about lightning-rods, the "Scientific American" stated that this plan would protect as well as it is possible to protect buildings from lightning.

In twisting two strands of wire together for the conductors, cut a piece twice as long as the distance over the building, and long enough to go in the ground ten feet on each side. Put it around a couple of trees or posts the proper distance apart, and twist it up in the middle with an iron rod. This makes a very neat-looking rod.

Do not use glass insulators, but nail the rod to the side of the building and edge of the roof with galvanized strips; also over the top along the ridge, if the

building has not got a metal ridge-board. Make as few joints as possible.

This kind of rod can be put up for less than three cents a foot. An agent for copper lightning-rods wanted to sell me rods for twenty-five cents a foot, which is very expensive, and no better so far as protecting a building from lightning.

"Electricity and Magnetism," by Silvanus P. Thompson, page 258, says Prof. Oliver Lodge and the author independently and for different reasons recommend iron in preference to copper for lightning rods.

The extra-best, double-galvanized, telegraph and telephone No. 4 wire comes put up in bundles of one fourth mile. A bundle of this size is not expensive, about four and one half cents a pound. It can be obtained from electrical supply companies.

The use of a rod is to conduct electricity harmlessly from the clouds to the earth. When a cloud charged with electricity approaches a building the pointed rod discharges a portion of the electricity and the cloud moves away. But if a discharge takes place and the lightning strikes it passes down the conductor into the ground and so protects the building from damage by lightning.

A lightning-rod does not attract lightning; it is simply a road by which the electricity of a cloud escapes into the earth, without injury to life or property.

Ohio.

G. G. KIMMELL.

### Making the Clover Hay Crop Valuable

Of all the crops that are raised upon the farm in a standard way there is possibly none that is so difficult to handle and cure properly. We are safe in stating that at least two thirds of this crop is harvested each year in a more or less damaged condition, and a large proportion of this in a very unfit condition for feed-

just right to be stored away in the mows. If it be stored away when in a sappy, green state, or when very dry and brittle, it cannot be expected to be removed from the mows for feeding in the best of condition, but will be either molded and musty or broken up in handling and very dry and dusty, and unfit for feeding unless moistened.

It is seldom profitable to try to handle more clover hay than can be gotten under cover, for it is very difficult to stack it out in keeping order, unless stack covers or other roofing arrangements can be used.

No one can tell what the weather may be twenty-four hours in advance of haying-time, nor is it profitable employment for the farmer to predict the weather at this special time of year.

The best practice is to mow down what hay the force about the farm can handle well in a certain specified time.

We have always practiced mowing from the middle of the afternoon until late evening, thus leaving the green hay lying in the open swath. The dews of that night will have no serious effect upon it, as would be the case if mown in the morning and partly cured out by the noon-day sun, when it will become bleached and brittle before it can be gotten under cover the next day.

Too much tedding and thinning out of bunches thrown up in very heavy places cannot be done, and indeed the hay crop cannot be stored properly unless this thinning and stirring up is done.

When the hay is ready to be stored into the mows, it is thrown directly into windrows just large enough to facilitate easy pitching upon the wagons, and hauled directly to the barns. We use the low-down wagon fitted with wide rack in order to avoid much hard work and high pitching.

We need the high-wheeled wagon no more upon the farm in haying time in order to elevate the pitcher in reaching the heights of the barn mows. The modern harpoon-fork and hay-rope rigging have passed the former custom so far into the beyond that it is almost ancient to-day.

It is not best to rush too much hay into one mow at a time. We aim to have two mows empty, and alternate the filling of them and thus obviate tramping the hay, preferring to spread it about evenly and allowing to settle by its own weight. In this manner the mows may be filled with little danger of the hay packing so solidly in the bottoms that mow-burning will take place.

In order to obviate the danger of the hay packing too solidly directly underneath the drop of the fork, a large pole is strung across the mow and the hay striking the pole as it descends from the harpoon will not all drop in a bunch, but will spread out considerably, and thus also save much hard labor in mowing it away.

The clover hay crop is made doubly valuable where plenty of seed has been used in securing the stand; the stalk growth is finer and the fiber not so coarse as is the case where the seeding has been scanty. We have always found it

better legume grown, considering all points.

Clover hay compares fairly well with pea hay both in feeding and as a land improver, but land must be in a high state of fertility to produce a crop of clover, while stock peas will grow on almost any land, and prepare it for clover and other valuable crops. Of course, fertility of the land will govern more or less the yield of the pea crop, but it is not so dependent on this point as most other crops, but with the help of some potash and phosphate will make a fair crop on very thin land if properly prepared.

June 10, 1905, I began cutting my wheat, and soon after started plows on the same land, getting it ready for cow-peas, which were all sowed by the nineteenth of July. These peas were put in with a disk drill at the rate of one bushel of peas and one gallon of sorghum seed an acre, together with three hundred pounds of sixteen per cent phosphate and six per cent potash. This land was rolled after seeding, so as to be smooth for cutting the hay. September 26th, in just eighty-four days, the first peas seeded were ready to cut, many of the pods being dry and the leaves turning yellow.

I began cutting with an ordinary mower, and as soon as the mower was far enough ahead to be well out of the way the rake was started, raking the green vines up in windrows as other hay. As soon as the rake had a start, shallow holes were dug in rows and poles set. These had short limbs left on when cut. These poles were about four inches in diameter and eleven feet high. One foot from the ground two four-foot strips were nailed on these poles crosswise to prevent the vines from settling close to the ground and form an air space under the stack. The green vines were then thrown up around the poles and stacked as high as could be well done with forks; this finished a stack about five feet in diameter and ten feet high, which cured out on an average of four hundred pounds of nice, bright, dry hay, free from mold, and sunburns, and with all the leaves on the vines, which cannot be done by sun curing.

By placing the stacks in straight rows, the land can be at once gotten ready for another wheat crop.

I made an average of two and one half tons of fine hay as a catch crop. I always get in two of some kind on the same land each year, being careful that one of them is a legume, which I either cut off or turn under.

Some will say that setting these poles is too much trouble and expense. Well, I think by a little figuring you will find it pays, and that is what we are after, the money and improvement of the land at the same time. With an up-to-date hole-digger holes can be dug rapidly. The poles can be cut ahead when not busy. When ready to set, a team can distribute them in a very short time. You can set them and stack the hay about as quick as you can cock it and turn it over every few days. Most important of all is that the hay is out of the way the first day, and the land ready for the plow or harrow, as you may prefer. This enables me to get in the following crop at once. I leave the hay in the stacks till fall work is over, then I haul the hay to the barns when convenient.

I have used this plan for several years, and would cure by no other, as the hay is so much nicer. Horses, mules, cows and in fact all stock are very fond of it. I am feeding it to my fowls, cutting it fine and mixing it with middlings. It is eaten with a relish and cleaned up.

This plan may not work so well in all sections, but I advise all to try it. Too much cannot be said for pea hay.

Virginia.

D. F. DUNLOP.

### Care of Pastures

The care of pastures, and the getting of best results, should at all times demand the attention of the up-to-date farmer. All through the early months of summer, cattle improve and increase in weight; but toward the latter end of July and during the month of August cattle suffer. If the pasture during these hot and trying months do not receive attention, there will be a great falling-off in the weight and condition of the cattle from the fly pest and from short grass.

Manure can be used as profitably on a pasture as on a plowed field. By a light top-dressing, cattle will cease to graze closely, and then the late summer and fall rains will come, and the grass will spring up and afford a luxuriant pasture for cattle or sheep.

Unless the pasture is top-dressed, one will see the cattle fighting flies in a worn-out pasture and wandering from one end of the field to the other in search of food. This causes great loss of flesh and milk. The only remedy is to fertilize and top-dress the pasture.

Virginia.

WM. EWING.

## Farmers' Correspondence Club



MAKING LIGHTNING-ROD POINTS

ing to our live stock. We have learned that this crop, when properly handled and cured out, and stored in good condition, is one of the most valuable of feeding crops, hence it is evident to us that a little caution in handling and making this crop is very profitable.

It is true the haying season is one of hustle and "make hay while the sun shines," but do we not make the clover haying season too short and filled with just a little too much hustle for the real good of this crop?

Clover hay, when cured out properly, is

profitable to mix our seeding of clover two thirds red and one third alsike, as this mixture furnishes us with a first-class medium feed, and is much better received upon the market.

Ohio.

GEO. W. BROWN.

### Growing and Saving Cow-Pea Hay

Having grown and cured cow-pea hay successfully for many years in Henry County, Virginia, I will give my experience. I wish to say that there is not a



### The Fertility of Our Farms

**DIRECTOR CHARLES E. THORNE**, writing on soil fertility in the Ohio "Farmer," gives the following general conclusions from tests carried on for many years by the Ohio Experiment Station:

I. On the ordinary soils of Ohio the first element of fertility to be exhausted is phosphorus. This is because our system of agriculture is such as to carry this element away from the land, either in the bones and nerve tissues of live stock which has been grown upon it; in wheat, which has been from the earliest history the great cash crop of the state; or in milk, which is being more and more largely carried into our rapidly growing cities. There are possibly a few localities, especially where the soil lies on limestones, where this element is not needed; but its cost is so small that every farmer can afford to test his soil by the actual application to his fields of some carrier of phosphorus, such as acid phosphate or steamed bone-meal. The quantity to be used must be learned by experience. It shows most evident effect on the wheat crop, producing a rapid growth in the fall and early spring and hastening the maturity of the grain. Land at the experiment station which is averaging thirty-five bushels of wheat to the acre in a three-year rotation of potatoes, wheat and clover, has yielded a six-year average of forty-two bushels of wheat per acre when the potatoes and wheat have each been dressed with acid phosphate at the rate of 160 pounds per acre, and less fertile land has shown a still larger relative gain.

II. On soils which have been worn by excessive cropping nitrogen is the next element required. Nitrate of soda is the most effective carrier of nitrogen in ordinary use for fertilizing purposes, and in most cases it will be found to be also the cheapest commercial carrier. On such a soil as that above described the Ohio station is now producing an average increase of crop to the value of \$18 per acre in the crops of a five-year rotation which have received 320 pounds of acid phosphate costing \$2.40, but this increase has been raised to the value of \$35 per acre when 480 pounds of nitrate of soda, costing \$12, has been added to the acid phosphate, thus increasing the net gain, after paying for the fertilizer, from less than \$16 for the acid phosphate alone to nearly \$21 for the combination carrying both phosphorus and nitrogen.

On less-worn soils nitrogen will not be so urgently demanded. In the potato rotation above referred to the addition of nitrate of soda produces no further increase of crop; but where the unfertilized yield of wheat falls to twenty-five bushels per acre, and that of corn to forty bushels, then a carrier of nitrogen may be used in small quantity with profit.

III. Potassium is less often required than either phosphorus or nitrogen, but it is sometimes an important constituent of the fertilizer. This is especially likely to be the case on soils which have been hard run in grain cropping, both grain and straw, or stover, having been removed from the land. Muck soils are also sometimes deficient in potassium. The cheapest commercial carrier of potassium is the salt known as muriate of potash.

IV. Lime, as has been indicated above, is less likely to be required than either of the other elements of fertility, and yet there are soils upon which lime is the first substance required. Such soils are usually those which have been derived from sandstones or shales, and have been subjected to exhaustive cropping. The first symptom of need of lime may be observed in the irregular growth of clover. If, after a full stand is secured in the spring, the clover remains stunted in large patches after the wheat has been taken off, and largely disappears during the following winter, then lime is probably required. Numerous manufacturers of lime are now grinding the lump lime into a coarse meal, and this is being sold for agricultural purposes at \$4 per ton in car-loads at the point of manufacture. From half a ton to one ton per acre is a safe application to begin with. Some soils require two tons or more for complete amelioration, but there is a possibility of greatly injuring the soil by excessive application of lime.

## Review of the Farm Press

### When to Cut Clover Hay

Some lessons must be repeated over and over again to impress their value on the mind so strongly that the application will not be neglected. Early cut clover is one of Mr. Terry's important subjects. In the "Practical Farmer" he talks about it in his own interesting way:

It will soon be time to cut clover and grass for hay, if the best quality of winter feed is desired. Clover should be cut when in full bloom, or soon after. If one hasn't much to cut he may wait until it is a little past full bloom, as it cures easier at that time. If he has many acres to cut, so it will take two or three weeks to do the job, it is better to begin quite early, rather than have the last of the clover mature, so that all or nearly all of the blossoms are turned brown. It will take more work to cure this early cut clover, but the quality will be choice. It will be more digestible. Clover that stands until most of the heads are turned brown has lost some of its feeding value. Part of what would have been digestible when in full bloom has changed into woody fiber that will fill an animal without feeding it properly. Yes, you will have to feed some grain with this late cut clover to make stock do as well as they would on the early cut alone. And that isn't all. Late cut clover or grass is likely to make trouble with the digestion, if fed freely, and it is also constipating. Other animals than man are not at their best when troubled this way. One loses nothing in the end by cutting the first crop of clover extra early, as a rule. He may not get as many pounds per acre as he would later, but it is more nutritious and the second crop will spring up more quickly. I have always considered that I gained in the

sleek and healthy by being easily digestible and by keeping the bowels in good order. It is, however, most too loosening for some horses, if they are allowed to eat it freely. In such a case give them part clover hay. It will have much the same effect as some wheat bran or oil-meal would have. This from long experience.

### Alfalfa for Eastern Farmers

In a special article under this title in the "Rural New Yorker" H. M. Cottrell sums up the feeding value of alfalfa as follows:

"Alfalfa yields three times as much protein per acre as clover, nine times as much protein as timothy." "Alfalfa has practically the same feeding constituents, pound for pound, as good bran, and should be regarded as an equal to bran when used as a feed for stock." These statements made in a report of field trials of alfalfa by the Wisconsin Experiment Station show fairly the value of this crop for Eastern farmers. On any farm in the eastern half of the United States that has a field adapted to its growth, alfalfa can be raised, harvested, and put in the barn at cost not to exceed \$5 per ton, this to include a fair rental for land and machinery, and on most farms the total cost need not exceed \$4 per ton. Land adapted to alfalfa will yield an average of five tons per acre a year in the rain belt. With a yield of five tons per acre of feed equal pound for pound to good bran, and produced at a cost not to exceed \$5 per ton, it is not difficult to estimate the value of alfalfa to the Eastern farmer who can raise it. The Eastern farmer who grows alfalfa produces his needed supply of protein at about one fourth the cost of buying it in mill feeds.

### Italy

[CONTINUED FROM PAGE 1]

from sixty to a hundred little ones of all kinds being caught in a single drive. A dish of small birds, including sparrows and thrushes, is considered a great delicacy even by city dwellers in Italy. Although game laws have been enacted, little attention is paid to them. Instances of a judge imposing a fine for shooting out of season are so rare that one seldom hears of them.

The Italians are natural-born gamblers and will indulge in their passion for play in any manner, from pitching pennies at a crack, to staking their earnings on tickets in the national lottery. There are over seventeen hundred lottery offices scattered throughout the country, and thousands of agents work every city street and country road before each drawing. In a year the profits of the government often amount to five million dollars. The people of southern Italy, who are the poorest and most ignorant, are generally the best patrons of the game.

Here the state takes half the profits. It is of course a heavy drain upon the people, but it is regarded as a form of taxation, and it is supposed to prevent them from gambling in other ways, so that money which might otherwise be thrown away goes into the state treasury. The leaders of the poor classes do not agitate for its suppression, because they say that the state would only impose heavier taxation, which would be less agreeable.

The Italians do not select their numbers for the lottery in a hit-and-miss fashion, but are guided by omens and revelations. A formula for interpreting dreams is very popular. If you dream that you saw a horse run away and overturn a wagon, look in the dream-book to see what number represents horse, and then turn to wagon. Put the two numbers together and you have a combination which ought

to break the bank. This is really an easy way to make money—if it would only work. Is anything more pathetic than the spectacle of these poverty-stricken, weak-minded fools who imagine they can find a short road to fortune by such means as this.

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AN ITALIAN FARM CART

second crop more than was lost in the first, in pounds, to say nothing of quality. Then there is another good reason for early cutting on land rich enough to grow a large crop. A rain-storm is almost sure to lay the crop down quite flat about blossoming-time, or soon after, if not before. Then one can hardly cut it as closely, so two weeks later he may not get any more pounds of hay per acre. I have always tried to cut clover before it got down much, if possible. Some years, of course, the weather prevents this. I have mowed a piece purposely just before a storm, when the crop was very heavy and rain would surely lodge it. There is one matter that is likely to deceive people when clover gets down. The heads do not turn brown as quickly. Nature seems to lead the clover to grow up again some before maturing its heads. But it is losing in quality for hay, particularly if the weather is wet. Yes, the stalks lying on the ground get more or less moldy and will not make as fine a quality of hay. When you have a heavy piece of clover, badly lodged by storms, and it continues in bloom for a long time, do not leave it on that account. I prefer early cut clover for all kinds of stock. If it is nicely cured it is fine for horses. It will help keep them

The alfalfa supplies what the other home-grown feeds lack, and combined with them in proper proportions will make balanced rations for all kinds of farm animals. Alfalfa is a good feed for every animal on the farm—the working horse, the brood mare, the growing colt, the dairy cow, the heifer that is to be developed into a heavy milker, the calf, all beef animals, both growing and fattening, the brood sow, the growing pig, the fattening shoat, lambs, sheep and poultry of all kinds. It is a nutritious, cheap, healthful and safe feed, and secures good returns from farm animals in labor, growth, beef, milk, pork, mutton, wool or eggs. Printed tables give alfalfa hay as containing twelve to fourteen per cent of protein. In the last three years alfalfa growers have improved the quality of alfalfa hay by earlier cutting and by better methods of curing and handling, and choice alfalfa hay now contains sixteen to eighteen per cent of protein, and sometimes even more. The writer handled many car-loads the past winter of alfalfa hay grown in western Nebraska that analyzed 16 to 17.5 per cent of protein after the losses from baling and shipping.

In the wet year of 1905 alfalfa made four cuttings at the Wisconsin Experiment Sta-



### Choking the Weeds

**I**N MANY cases we could hardly find a better method to get rid of weeds in certain crops than by choking them. I have just put a lot of old corn-stalks, some of them half rotted, between the rows of rhubarb plants so as to completely cover the ground, leaving nothing but the plants themselves free from a heavy cover. The weeds will be very scarce in that patch until the whole surface is covered with the rhubarb foliage.

This treatment also keeps the ground loose and mellow, and gives us a chance to walk over the patch for gathering the stalks even right after a rain, and while the ground is wet and sticky. My raspberry and blackberry patches have been similarly treated for some years, and always with the same satisfactory results. When we have old corn-stalks, or other coarse rubbish, we can always find good use for them as a mulch in the garden or in the early potato patch, or in the celery rows, etc. Sometimes I use even weeds or other growths cut in fence-corners or the highway for mulching my bush fruits.

### The Strawberry Patch

Some of my strawberries did not have much of a mulch last winter, and in some spots the ground between the rows began to get quite weedy. I have given them a thorough going-over with the spike-tooth cultivator (although I believe that a spring-tooth cultivator, or one having wide, cutting blades, would have done even more damage to the weeds), and after that operation have covered every inch of the ground, weeds and all, except the strawberry plants, with a layer of horse manure, thick enough to choke the life out of the weeds. Nothing green appears above ground at this time but the foliage of the strawberry plants. The rains will wash everything soluble out of the manure, and the sun will dry the surface like a mulch. There will not be much chance for the soil to get dry under the manure covering, yet should it be necessary to irrigate, then we can expect to reap the greatest benefits from that operation. When the berry season is over, the ground will be plowed, and may be expected to offer the very best chances for growing a magnificent crop of celery for fall and winter use.

### The Boys' Garden

The two youngsters (eight and ten years old) have been talking "garden" to me for some time. At the first suitable opportunity I plowed up a little patch for them, and when they asked me what they could plant that they might most easily sell to neighbors and get a little money, I opened a few furrows for them, and gave them a quart or two of one of our most promising garden peas (Pride of the Market), and what Early Ohio potatoes they needed for planting the patch. The peas when fit for the table will be in good demand, at a good price.

The boys will have plenty of time to take care of the few rows, and gather the peas and potatoes, especially as the summer vacation is soon to begin. So they are hopeful of earning a little pocket-money, as they did last year, and to add materially to their "bank account." Of course, they are not satisfied with just the few rows of peas and potatoes. They also want a little spot where they can raise a miscellaneous lot of vegetables—lettuce, radishes, beets, carrots, etc., all things for which they can easily find sale in the near neighborhood. It gives them some business and will for the time keep them out of mischief, besides the practical training they receive thereby.

### The Bunch-Onion Crop

The season is unusually late. Our Welsh onions have wintered all right again, but they are not so well blanched, and not so sweet as we had them in other years. These open winters seem to deal more severely with the onions out in the open air than the colder winters that give us the usual amount of snow, and at times a temperature somewhat below zero. The frequent changes which we had during the last winter, and the almost continuous bare ground, have damaged the onion plants in the open field, especially the Portugal for spring bunching, and also the bulbs set out last fall for seed, more than the severest winter has done heretofore. Yet we shall have, and are now having, a good lot of onions fit for bunching.

### Onion Plants for Transplanting

In the "cozy corner" where, about the middle of last September, I had sowed a few pounds of Prizetaker seed with the idea of growing the plants for transplanting to the open ground in spring, a few of the plants, mostly standing in little sections here and there, in the most sheltered part of the patch, were still alive and doing well, showing that the Prizetaker

## Gardening

plant is fairly hardy, and that it may be possible to grow and winter the plants in open ground if conditions are fairly favorable. Those of last winter were hardly so for wintering things outdoors unprotected. The first of September, I believe, will be found the best time to sow the seed in this locality.

### Cutting Asparagus

An Indiana reader has a four-year-old asparagus bed. Many stalks are large. Some are small. Should the small ones be left to grow, and only the large ones be cut? That is his question. The right way is to cut everything clean up to the end of the asparagus season, or up to about the time that green peas are fit to gather. After that we let all the stalks grow, but if we were to cut any, we would remove the little ones rather than the big ones.

This clean cutting is also the best remedy for the asparagus-beetle, which gives us some trouble here. As long as all the stalks are cut, the insect is given no chance to breed, and later on, when we stop cutting, we can spray the plants with the Bordeaux-mixture and arsenate-of-lead combination which makes an end to the beetle attacks for a while, and also checks the rust if that gives trouble. For ridding the stalks of slugs alone, dusting with freshly slaked lime while the plants are still wet with dew will answer.

### Cow-Peas

Cow-peas are not a pea but a bean. They are not the peas that grocers sell as dry peas for soups, etc. Yet in many localities in the Southern states cow-peas are much thought of for the table, and are cooked in various ways, in soups, etc., and I do not see any reason why they should not be palatable. Here in our colder locations, however, we do not give this vegetable a place in our gardens except for curiosity or variety. We can grow and ripen the earlier sorts, but we can do better with common garden peas and common garden beans, and the crops are generally more satisfactory and acceptable to us. Even in the warmer sections of New York State, however, the cow-pea is promising as an orchard cover crop, and is often used for that purpose with good results.

### Potato Rot

The rot of the potato can be controlled by keeping the vines free from the late or infectious blight. If you persist in neglecting to spray your late potatoes with Bordeaux mixture (which should be done no less than three times, and better five times during the season), your potatoes will be liable to become blighted and to give you more or less rotten tubers. By all means, spray! It is the only salvation.

### Straw as Mulch

A Baltimore (Ohio) reader asks whether it would do to put straw around and between tomatoes, potatoes, cucumbers, beans, egg-plants and other things in the garden to keep down weeds and to make it easy and clean for the person gathering the crop. This is a plan I have often referred to and recommended under the name, "carpeting the garden." When we have plenty of straw that is free from objectionable seeds, we can hardly put it to better use than in this way. I have at times kept my early potatoes, my cabbages and cauliflowers, egg-plants, celery and various other things, heavily mulched in this way with excellent results. It keeps the soil underneath cool and moist, which is of particular advantage to potatoes, cucumbers, celery, peppers, etc., and of course it chokes out the weeds. At the same time, however, it also gives shelter to the common slugs, and these may have to be disposed of by the occasional use of freshly slaked lime dusted over the beds at night.

### Cucumbers for Pickles

I like the various strains of the White Spine as a cucumber for pickles. Those of the Long Green are also good. I have several inquiries about "dill pickles" and how to make them. The recipe is as follows: Select large, smooth cucumbers, say six to eight inches long. The seeds may have begun to form, but should not be allowed to begin to fill. Soak them in fresh water for about twenty-four hours. Then brush them briskly with a stiff brush. Next take a well-cleaned and scalded keg, or barrel, or earthen crock, or tub. Put a layer of washed fresh grape leaves in the bottom, then a layer of pickles, then another layer of grape leaves, with now

and then a few stalks of dill, another layer of pickles, and so continue, alternating the layers, until the pickles are all laid down or the receptacle is full. Put on a loose cover and a weight, and finally pour over the pickles a brine made by dissolving a pint of salt in about four gallons of water, and keep the pickles wholly immersed until used.

In warm weather these "dill pickles," the celebrated "sour cucumber" of the Germans, will become fit for use in two weeks' time. They are quite wholesome and palatable. To serve, the pickles are peeled and sliced in halves or quarters lengthwise.

The dill plant is an herb of easy culture. All you have to do is to sow a few seeds in a drill, same as any other garden herb, or as lettuce, cresses, etc. It usually reseeds itself, having somewhat the nature of a weed, although not liable to become troublesome. We cut the stalks a little above the ground, and use it whole to put in among the grape leaves.

Small pickles to be put away for winter sales are usually packed in salt; but each factory has its own ways of mixing and preparing pickles, in cans, etc., for sale in a commercial way. It would probably not be an easy matter to induce, for instance, the pickle manufacturer Heinz to furnish the recipes for making his "57 varieties" for publication.

### Small Scale Spraying

Many within the ranks of the FARM AND FIRESIDE readers possess only what might be called a "handkerchief" garden, a little spot scarcely more than a few square rods in area, where they plant half a dozen tomato plants, a few hills of early potatoes and of various vine fruits, ten or twelve cabbages, and a few other things in proportion.

Some spraying may have to be done even in a garden of so limited size. The regular knapsack sprayer is a good thing for our larger gardens, and its possession and use give me much comfort. We cannot expect that the "handkerchief" gardener cares to pay twelve to fifteen dollars for a good sprayer. In fact, he might content himself with the device first used twenty years ago, when spraying as a regular farm and garden practice had its beginning, namely, a simple whisk-broom, even if homemade.

The mixture, properly seasoned with paris green, or better, arsenate of lead, may be carried in an open bucket, the whisk-broom dipped into it, and the liquid thus distributed with a jerky motion over the few potato, tomato, cucumber, squash and melon vines. There are various small hand-sprayers, such as we use for spraying animals with fly-repelling liquids, but for cheapness' sake they are made of tin, and not suitable for spraying liquids containing copper sulphate. So it must be the whisk-broom for the very small operations, unless a hand brass spray-pump of some sort is available. If I had no knapsack of my own, however, I would gladly pay a neighbor who has one, a reasonable price for the use of it, or to do the spraying for me.



FIRST SPRAYING DEVICE

### Nitrate of Soda Not for Late Crops

An Indiana reader asks me whether it would pay him to fertilize his late tomatoes with nitrate of soda, and where to get it. The New Jersey Experiment Station some years ago made a series of experiments, the results of which showed that the use of a little nitrate of soda around tomato plants shortly after they are set in open ground tended to make the crop earlier, but that late applications had the very opposite effect. I have never yet seen any appreciable effect of nitrate of soda, applied either early or late, in either hastening or retarding the ripening of the fruit, or an increasing productiveness, and have come to the conclusion that for me, under my present circumstances, the application of that costly form of fertilizer on tomatoes would be a waste of effort.

I can raise very large crops of good fruit on my soil when kept fairly well enriched

with stable manure only. If I had sandy loam and only a limited amount of manure, I would, more freely than I am doing, resort to the use of good chemical manures, either complete, such as the special plant food which our friend inquires about, the special vegetable, onion, potato or cabbage manure offered by any reliable manufacturer, or the simple standard chemicals, such as nitrate of soda, sulphate of ammonia, muriate of potash and superphosphate.

Nitrate of soda is kept in stock by most of the large fertilizer "manufacturers," and will cost, in retail, something over fifty dollars a ton. Its chief mission, however, is to supply available nitrogen in the very early season and while the soil is yet too cool for the natural conversion of ammonia into nitrates. I therefore ordinarily use it in moderate quantities in very early spring, on early beets, spinach, radishes, lettuce, celery plants, onions, especially the bunch onions, etc. I use none for the later crops.

### Eradicating Peppermint

A reader in Ionia, Mich., asks for information how to destroy a bed of peppermint in a somewhat wet spot. Peppermint seems to like a surplus of water in the soil, and if you drain the land so thoroughly as to remove the surplus water, you will find it much easier to get rid of the peppermint. Plowing and pulling up the roots with good after-cultivation will do it. The farmers in Wayne County of this state used to raise peppermint as a regular money crop. I do not think that they ever had much difficulty to clear the land of it when they so desired.

*A. Greiner*

### Marketing Small Fruits

I will give the readers of FARM AND FIRESIDE my experience in marketing small fruits.

As I consider fruits nicely picked to be half marketed, I have found that it is well to have everything ready for the warfare. Boxes, crates and carriers all made and of easy access. Every box that I use is new, as berries look a great deal better in fresh boxes and they never fail to fully pay me for the price.

I have the picking done under my direct control and thus prevent any wrangling between pickers which would likely create disturbance. I use quart boxes for all kinds of berries except red raspberries, which carry best in pints, as the berries are too soft for long shipment in large quantities.

I never allow the berries to stand in the sun when picked, as strawberries will look soft, and blackberries turn red and go on the market in bad condition. I see that each box is well filled. With strawberries I have found it profitable in some markets to trim the top layers of fruit stems down, which makes the berries have a more beautiful appearance when opened.

In selling fruit on my home market I always face the quart boxes, which makes them more attractive. I slightly press the berries down and fill up all spaces. When I face the strawberries in this manner it enables me to get an increase in price of from one to two cents per quart and pays for the picking. I have this facing done by the pickers and they soon get used to it and do it quickly.

I have found that sometimes by taking extra care in sorting and marketing, a rather poor crop of berries will bring a fair price. Last year I had a crop of strawberries amongst which were a good many "buttons," and they made the strawberries look badly, but brought a reasonable price on the market. As they were brought up to the shed I had the boxes emptied and picked over, making three grades. The first grade I warranted to be all good berries. The culls all sold at \$1 a crate, and in the end I got a very satisfactory price for the whole crop.

If we properly pick our fruit it will bring us one third more money in the market. The fruit that brought me the best price last season was selected when picked and guaranteed by my card in each case. By doing this it not only assured me good prices but made me a steady market. Fruits to sell well must be put up in an attractive manner, the same as dry-goods and notions.

If anyone will visit the commission houses during the fruit season and see for himself the condition that some shippers put their stock in, he will be alarmed at some prices.

While I believe in a home market it is never best to overstock it. If I am getting good prices on ten cases I don't try twenty and break the market. Should I get some favorable telegraphs, "market strong, ship at once," I generally stay where I am best acquainted.

W. H. UNDERWOOD.



## Scale on Pine Trees

**A**BOUT four-teen years ago we bought some Scotch pine trees, which in a few years showed some reddish scale insect which seemed to quite seriously injure the growth in the parts of the plantation where the trees were protected from the wind. This finally got to be so bad that we thinned out every other row of trees so as to let in the light and air, as they did not seem to thrive well where exposed. Several years ago we sprayed with a mixture of kerosene and water and was quite successful, but it seemed almost a hopeless task to destroy all the scales which by this time had spread from the Scotch pine to Jack pine and Mountain pine, but it did not seem to thrive upon other conifers.

This spring we made up our minds to go at it even more thoroughly than we had in the past, and with this end in view prepared abundant scale wash, but when we got ready to apply it the scales which were abundant upon the pines last autumn had almost entirely disappeared, so that it was difficult to find the scale, or even an egg of the insect.

This destruction of this pest is a great relief, for I had thought that possibly the Central Experiment Station was the only place in this section that was infested, and felt a responsibility that it might be a center of infection for what would prove to be a serious pest to our horticulturists. I do not know just the reason why this scale has so suddenly disappeared, but know that last year Professor Washburn reported quite a large number of larvae of the ladybugs among them, eating the young. It seems to me, however, that there must have been some other parasite to have made this work so very complete.

With most of our insects, history of their rise and fall is very much the same. They increase very rapidly perhaps for a short time, when their parasite becomes numerous and finally destroys them, after which the parasites themselves die for want of food and then the insects again increase, and so we have some insects that come as it were, in waves. It will be remembered that a few years ago we had much trouble with the forest tent-caterpillar, that it stripped the foliage off of



the best thing to do. By this means you will get rid of all infested wood, but in doing this great care should be taken to cut the canes so close to the ground as to take off all the wood that is infested. By this treatment you will lose most of your crop for this year, but I am inclined to think that these canes are so badly infested that they will hardly have strength enough to furnish a good crop anyway. If this treatment is followed, then the new shoots that come up from around the hill will produce tip layers, and will be entirely free from this pest.

## Time to Uncover Grapes

H. B. T., Tomah, Wisconsin—In a case like yours, in a locality subject to late spring frosts, I should certainly advise leaving the vines down until the buds begin to swell, and would not raise them until the last possible moment. I should follow the same rule in the case of blackberries.

## Bleeding Grape-Vines

J. R. B., Lynchburg, Virginia—It was pretty late in the spring to prune grapevines when you pruned yours, and this accounts for their bleeding so much. However, this will not kill the vines, although I dislike very much to see them bleed, and think as a rule it weakens them. I have, however, had vines bleed very badly and still come on and do well. There is no way in which you can stop the bleeding that is worth while to try, except perhaps to stick a potato on the end of the cut-off shoot.

## Fruit Trees Unproductive

A. B. B., Los Angeles, California—There might be several reasons why your trees did not produce fruit, but it seldom happens that barrenness in fruit trees is so marked as in your case, where prune, apricot and peach trees are all unfruitful and yet growing thriftily. It often happens, however, that a single tree of a certain variety, of even an orchard made up of one variety, fails to produce fruit, in which case it may be due to self-sterility. Then in frosty locations the flowers may be injured. Of course few trees produce much fruit until they have attained a con-

## Fruit Growing

should go spirally around the tree just enough to make one circuit so that when completed the cut ends about two inches below where it started. Such treatment seems to act by impeding the flow of sap and inducing the plants to set fruit buds for the production of fruit the following year.

## What Fruit Pays Best in Minnesota

F. E. W., Austin, Minn.—I should think that strawberries at ten cents a quart ought to pay pretty well if carefully managed. However, this would be a very low price for raspberries.

You ask us to state what kind of fruit you had better invest eighty dollars in for best results. Success in such a venture is so largely a personal matter that I am not able to answer you satisfactorily. Much depends upon your location and soil, about which you say nothing. In good locations in the vicinity of Austin I am inclined to think that the Patten's Greening apple will give as quick and profitable returns, if properly looked after, as anything I know of in a horticultural way that you can plant.

## Sacks for Grapes

J. T. P., Dayton, Ohio—For sacking grapes we generally use a two-pound paper sack, such as is commonly used by grocers for putting up goods. It does not need any special preparation. The sack is drawn over the bunch and around the cane from which the bunch grows, and pinned in place. In order to accomplish this best, the sacks should be split down about two inches on each side. It is also a good plan to cut off about one half inch of one corner of the sack so as to allow for drainage.

## Black-Locust Tree-Borers—Pear Leaf-Blight

S. R., Russell, Kansas—Where black locusts are grown in large quantities for a long term of years they often become so infested with borers as to be almost worthless. There is no satisfactory remedy for this pest. Spraying is of little value in this case. The young trees



PICKING CUTHBERT RASPBERRIES

almost every broad-leaved tree, but disappeared very suddenly, due to the presence of an internal parasite which destroyed them.

## Scale on Raspberries

J. R. F., Elmwood, Ohio—The raspberry cane which you sent on is infested with one of the white mealy scales which is quite new to me. The best remedy would probably have been to have sprayed them with lime, sulphur and salt wash in the winter. It will be quite out of the question, however, to do it at this time.

Another treatment that could have been used satisfactorily would have been to cut the plants off at the top of the ground and sprayed the stumps with kerosene, and I am inclined to think that even now this is

siderable age. This, however, varies with different kinds of fruit, and even with different varieties of the same kind.

In the case of pears, plums and apricots which did not produce fruit and which were old enough to do so, and were located so that self-sterility could hardly be the cause. Before deciding that it is not worth while to keep such trees and before destroying them, I should practice girdling them, although I do not like to recommend this for general practice. I have seen excellent results come from it when done in the proper way. To do this successfully the work should be performed some time in May or June, with a cross-cut saw, with which a cut should be made through the bark of the tree down to and just a little into the sap wood. This cut

are seldom much affected with borers, and old trees are often very badly infested. In fact, it seems that when the trees get weak they offer the best opportunity for borers. On this account probably the borers could be kept somewhat in check by burning the few old trees in a plantation that are especially affected.

The leaf-blight that injures your pear leaves each spring, causing them to curl up and die, can probably be entirely prevented by the use of Bordeaux mixture, which should be sprayed on the leaves as soon as they have commenced to unfold, and be repeated perhaps twice—at intervals of two to three weeks.

*Samuel B. Green*

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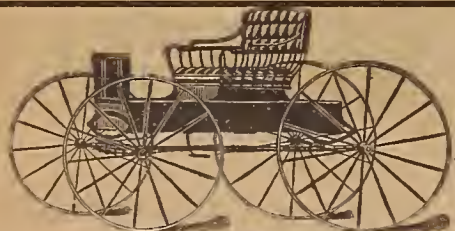
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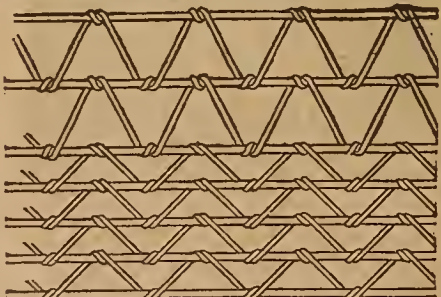
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A GREAT many farmers and dairymen who intend building silos the coming season have made more or less observations of styles of silos already in use in their neighborhoods, and possibly have adopted the kind best suited to their conditions, or most striking their fancy.

It may be remarked here with some pertinence that fancy and theory have not been the safest guides to follow in the past, nor is it reasonable to expect them to in the future. Actual observation and practical experience offer the safest suggestions to the farmer who anticipates the building of a silo. The inexperienced theorist is very liable to overlook certain fundamental principles concerned in the ensiling process, because other opposite principles appear reasonable, or are applied in processes that seem to him to be altogether similar. Hundreds of abandoned silos all over the country attest these statements; hundreds of farmers have consequently become opposed to silos for the very reason that they failed to observe the essential principles and features in building the receptacle.

A dozen or more manufacturers in the Central States are now putting out stave silos of various styles, sizes and materials. These silos are usually made well with a view to durability; they are all ready to set up when received and have generally given satisfaction. If a reliable material be selected, if it be placed on a good foundation, if well anchored, and kept tight by drawing up the hoops, there will be no cause for dissatisfaction. Like other manufactured implements very much depends upon the care and use in each individual case. Possibly the chief objection to the factory silo is its cost, which to the ordinary farmer seems to appear high. Another criticism, and one that comes generally from the better class of farmers is the lack of permanence in a stave silo; of course this applies more or less exactly to all wooden vessels used for the purpose.

In solving the problem of a cheaper silo, large numbers of homemade wooden silos have been built. These are of several types. The square silo, with well-rounded corners, or the round, elm-hooped style will be found more safe, as the common, old-fashioned square-cornered kind always results in spoiled silage in the corners.

The silo with rounded corners may be built inside the barn or outside. The corners are cut off by spiking across short sections of planks from which the joiner has taken about a two-foot segment. By using narrow siding these corners may be caused to "take a circle" nicely.

The elm-hooped silo is constructed by making a hoop of green elm boards, sawed half an inch thick and five or six inches wide, or even eight inches wide. Sometimes the hoops are built on the ground according to a form and no studding is used; but in other cases studding is set up and braced from within, then the hoops are built up as nailed to the studding. In this case, usually the hoop is made of a threefold lap inside the studding and a twofold lap on the outside, the silo being then ceiled within and weather-boarded without. The first style, of course, composed of ceiling and hoops only, is the cheaper but least substantial structure. This type, however, is the more common, and has given very good satisfaction in many cases, in fact the satisfaction with it seems general.

Still another type of the elm-hooped silo is constructed by lathing instead of hooping the inside of the vertical studding. A coat of cement plaster is then applied. This type of silo has been in great favor in eastern Ohio the last few years.

A few who have desired a more permanent silo have used brick. The writer last summer examined a silo constructed of pressed brick, double wall, filled in with cement plaster. The wall had been strengthened by laying successive strands of heavy wire in the mortar. In June the silage was being fed out and was in fine condition. The first cost of this one-hundred-ton silo was about \$350. Mr. H. F. Probert, member of the board of directors of the American Jersey Cattle Club uses brick silos and has a fine quality of silage.

Some of the large feeders of Fayette County, Ohio, have silos of solid cement grout wall, and pronounce them indestructible, cheap, and very efficient in preserving silage.

A Cleveland, Ohio, gentleman, who owns several farms, experimented last season with hollow cement blocks for two silos. These blocks were molded to make a circle of twenty-four feet and afterward laid on a solid grout foundation. Cement plaster was used, and pure cement paint for the inside when completed. These silos have proved to be a success in every way. The owner of these silos wrote in detail to the writer of this article, and among other things said: "There has not been an ounce of silage taken from these cement silos which was not in perfect condition." The first cost of such silos is from forty per cent to fifty per cent more than a pine silo of the same size; considering their permanence, they are "not only practicable but economical."

The hollow blocks in this style of silo are supposed to reduce freezing to a minimum, and largely to do away with the dampness of the wall and condensation of moisture on its inside surface. The coldness and dampness of the cement wall have always appeared to the writer to be serious objections to cement structures, yet our experience and observations have been founded alone on the sub-structure of wooden silos. Those who have had experience with the all-cement silo are positive in its praise and recommend it without qualifications.

A prominent manufacturer of vitrified building blocks is preparing to make experiments in silo construction with his goods. The double block will be used, and the ends cut on a bevel, so as to effect any circle desired.

From such experiences with several different types of silos it may be seen that no beginner need walk an unbeaten path in the matter of coming to his conclusions; nor need he forge out into untried experiments for the want of successful experience of others by which he may be guided.

GEO. P. WILLIAMS.

### Rock Salt for Stock

As soon as grass becomes plentiful, all kinds of stock will enjoy it so exclusively that many owners will never think of giving them anything else; neither is much else wanted, as with plenty of grass artificial foods can be discontinued generally, with a saving to the farmer and no deterioration of the stock; but I make a distinct exception in the case of rock salt. It is not a food, neither can it be considered a distinct medicine, but it is a great health-giver at all times, assists digestion, whatever the foods may be, and keeps the blood pure—two conditions which have a direct tendency to promote the development of all qualities.

Soon cows will be out at grass night and day, but they will be brought in to milk, and a lump of rock salt should be in the feeding trough of every one constantly. It will be noticed that every time they are in they lick this and go out contentedly.

Horses have the same liking for it. Those at work should have a piece waiting for them in the manger, and young ones should be given some in a crib. If a lump is put in a feeding-crib, and then put under a tree to shade it from the sun, it will be found that the colts will often be found licking it contentedly, and all the horses that can reach it will do the same, whether they are young or old.

Cattle lying out should have the salt provided for them in the same way, and one or two sheep troughs should always be put in a shady spot in the sheep fields, with a constant supply of salt in them. Probably few could explain exactly how much salt benefits sheep, or how it acts, but if one flock has access to it, and another not, while all other conditions are equal, it will soon be noticed that the salt-fed ones are the most robust and progressive. Their greater exemption from disease is also conspicuous. In short, careful stock managers should include rock salt as one of their most reliable assistants at all seasons.

W. R. GILBERT.

### A Silage Pointer

If you think you can go out and sow a bushel or more of corn per acre and grow thirty or more tons of green stuff per acre, and put it in the silo, and have good silage, silage that you can make milk and flesh and money on, you are going to vote the silo not all that it is cracked up to be. You will have undeveloped corn from sowing instead of planting, the natural outcome being that you will have an imperfect plant, imperfect feed and indifferent results.

W. F. McSPARRAN.



## Feeding Pen for Pigs

FOR THOSE who have small pigs or shoats to feed where there are fowls or larger hogs that would eat with them, we will describe a convenience that is altogether complete, and allows nothing but what is wanted to enter the enclosure where the feed is placed.

This is simply a small pen enclosed with a picket fence, or any kind of a fence, having pickets at the top, to keep fowls from flying over. On one side of the pen next to where the mothers and pigs run, make an opening about ten-by-ten inches square, and in this opening hang a small door, suspended by strap or leather hinges from the top so it will swing freely back and forth. This will allow the small pigs or shoats to pass through the opening freely, as soon as they get used to it, and nothing can disturb them while eating. If the door is of the proper size no big hogs can get in, and fowls may flock in numbers about the pen but we never knew one to get in, as the small door hangs shut all the time except when the pigs are entering or leaving. To train the pigs so they will soon understand how to go in and out is no trouble. The first time feed is placed in the pen it is advisable to prop the small swinging door open so they can enter to eat, then when all are in feeding, quickly remove the prop and let them find the way out themselves. When done eating they will soon begin to try to get out, and in a short time, one after another will find the small door will yield at the touch of their snouts and run out. Having once learned that this door will swing open for them, in two or three days they learn to go in and out, and the problem is solved.

Those who have never tried such an arrangement will be astonished how soon the pigs learn the way in and out of the pen, and the whole thing is so simple and of very little expense.

The writer has repeatedly arranged a feeding pen for pigs and shoats this way, and always with success for allowing the feeding of them, without the annoyance of having larger hogs or fowls to enter and rob them of their food.

Pens and the openings to them for the swing-door can be made any size to suit the sizes of the pigs, or the number of them, and will be found a great convenience.

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## Sorghum a Winter Food for Stock

Few farmers realize the value of sorghum as a winter food for stock. Horses, cattle and hogs are very fond of it. For some years the farmers of England and Germany have been using a low grade of sugar or molasses to mix with the ration of grain fed to stock, the sac-

pounds per acre is sufficient. From the 10th to the 20th of June is the best time. If sown earlier it is liable to grow too rank. It should be cut with a mower in October, left in the swath two or three days, raked and cocked up like hay. It may be left in the cock all winter and fed as wanted, or it may be put in the barn, or stack. It should be fed before the first of March, for after that time it becomes too dry and stock do not eat it so readily.

U. S. ELLSWORTH.

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## Wastes and Losses

The possible net profit on a really good cow is not so big that it may not be easily fooled away, and if not so disposed of its amount may be very materially lessened by a disregard for the small details and little economies attending the keeping of such a cow. By the same tokens, the cow that is only a good one by dairying courtesy, may be netted up as a poor one in that her small possible net profit has been allowed to dribble away in little wastes.

Generally, the dairyman is first a farmer, with dairying only as a line of his business, as swine breeding or chicken keeping are lines also. The cow fits in with the farming by reason of her being able to turn to profit such farm products as have no definite selling value.

She makes some manure which the man, her owner, uses with some measure of care. She produces a rousing calf for immediate veal-making or future beef-making. She produces a little milk that makes a little butter that is counted up by the fellows who tabulate the awful averages we who keep the sisters of this cow review with such despair.

She adds her expensive contribution to the mass of dairy products that represent no profit to the producer, because selling price has to be marked with cost price. Her product has represented the balance of trade in the market, and by supplying the demand has lowered the selling price of the products of those other cows, constituted and fed to make a profit.

The town consumer of dairy and other farm products may say: "Assuredly the farmer should be satisfied with his profits, for the working consumers of the cities are paying all they can afford for table necessities."

That is broadly true, but is the city man as continually alert as to his expendi-

our city brethren, but as charity begins at home and rarely grows from the town halls out into the country ways, it seems but proper that we who induce the herds and flocks and fields to produce and bring forth for the feeding of all the people should at least wish and hope that the laborer may get the hire of which he is worthy.

There are no combinations, pools, trusts and corporations working for us. We must look after our own salvation in the struggle we are holding with those who are working wholly for themselves.

The foundation law of honest dealing among men is that of supply and demand, with special privileges to neither side. It is no more wasteful or unbusinesslike to grow poor crops or keep unprofitable cows than it is to be unmindful of our civic rights, or of our business opportunities to limit production to the line of profitable demand.

Good citizenship of the agricultural stripe does not hope to do this by combinations and trusts, at once unlawful and ethically dishonest, but we would work toward it by educating the farmer that he is wasting and losing his prestige and his price by being contented, or at least not reformatively impatient, with making averages.

The greatest loss and waste on our farms to-day is in the good thinking and careful planning too many farmers are not doing.

*W. F. McSparran*

## Dehorning Calves

When the calf is young, as soon as the crust of the embryo horns can be felt, the hair should be closely clipped from the skin and the little horn moistened with water, to which soap or a few drops of ammonia have been added, to dissolve the oily secretion of the skin. Moisten the skin only on the surface of the little horn.

Then take a stick of caustic potash, which can be had from any druggist, dip one end in water until it is slightly softened, then rub it on the little horn. This operation is repeated from five to eight times, until the surface of the horn becomes slightly sensitive. The whole operation need take only a few minutes, and the calf is apparently insensible to it.

## Live Stock and Dairy



THE PICK OF THE FLOCK

charine matter producing fat and warmth. Sorghum contains the sweet distributed in the food, and is a valuable addition to the hay or stover which the farmer has gathered in hay-mow or stack to feed his stock in the winter.

It yields an immense supply of "feed" per acre, so that the farmer need not keep so many acres in meadow, and that is worth considering. Seven or eight tons per acre are often harvested, but from four to six tons per acre is a conservative estimate.

Seed should be drilled in; one hundred

tures as the country man in his efforts to make ends lap over a little at the end of the year's accounting? The city man will spend five cents for a glass of beer or a cigar, or ten cents for a drink of whisky or a better cigar, or fifteen cents for higher-priced whisky or cigar, and throw a fit at ten or twelve cents for a quart of milk and forty cents for a pound of butter.

Of course we liberal, simple-minded, good-hearted country people, with our long hours of labor and long hours of rest, do not want to work hardships upon

A slight scab forms over the surface of the budding horn and drops off in the course of a month or six weeks, leaving a perfectly smooth poll, and no inflammation or suppuration will take place.

This is far better than to perform a painful and troublesome operation by sawing or clipping off the horns after they have grown to be dangerous.

For efficiency, cheapness, and ease of application, stick potash can be safely recommended, but it should be kept tightly corked in a glass-stoppered bottle and not handled with bare fingers. E. A. REEL.

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### The Best Breeds

SEVERAL valuable experiments with breeds have been made within the past two years, and the results are not at all satisfactory, so far as solving the problem of which is the "best breed," or what kind of food is the most profitable to use, is concerned. In fact, these experiments, known as "egg contests," have resulted, in some cases, contrary to the expectations of the most expert poultrymen.

At the Kansas State Agricultural College, in 1904, seven breeds or varieties—Single-comb White Leghorns, Rose-comb White Leghorns, American Reds, White Wyandottes, Buff Wyandottes, Barred Plymouth Rocks, and Light Brahmas,—were selected with the object of comparing the merits of the breeds as layers and the adaptability of the several foods for the purposes for which they were employed.

Each pen consisted of six hens, and the winter was severe, while the quarters were cold. The methods of care and feeding followed were designed to bring out fair comparative results of the breeds and of individuals rather than forced egg yields. A variety of grain was fed the year round. This was fed in straw in winter, and in the yards in the summer. An evening mash was fed the entire year, composed at first of equal parts or bran, chop and meat-meal, shorts, and linseed-meal; and later of bran, chop and meat-meal only. In the winter mangels and alfalfa leaves, and in the summer green alfalfa and rape, were used for bulky food. Oyster shell and grit were supplied. No fresh meat, hot mashes, ground bone, red pepper, patent foods, or medicines were fed. The intention was to use only such foods as produced normal results and which can be secured at any place or in any season.

The most remarkable feature of the contest was that the Leghorns gave as good results during the winter season as the Brahmas, the latter being considered as superior winter layers, the Single-comb variety laying 885 eggs during twelve months and the Rose-comb 828 eggs. Next in order were the American Reds, 820 eggs; White Wyandottes 799 eggs; Buff Wyandottes, 764 eggs; Plymouth Rocks, 619 eggs; and Light Brahmas, 539 eggs. Both Rose-comb and Single-comb Leghorns suffered a loss of two members each. The American (Rhode Island) Reds were composed mostly of early hatched pullets, and molted during January, while the Light Brahmas consisted of pullets not fully developed when the contest began, one of them having died. The Plymouth Rocks were mostly full-grown hens, and rather too fat. The White Wyandotte pen lost a member, and the Buff Wyandottes contained a very inferior bird among their number.

To point out to the reader that the selection of the best breed, or the best hens, is very difficult, it may be mentioned that in this experiment the best lot of hens did not contain among them the best individuals, as the best individual records in each of the seven varieties were as follows: White Wyandotte, 190; Barred Plymouth Rock, 185; American (Rhode Island) Red, 184; Single-comb White Leghorn, 182; Rose-comb White Leghorn, 182; Buff Wyandotte, 180; and Light Brahma, 106. It cost about eighty cents to feed each bird for a year, and the average net profit on each hen was fifty-two cents. From October 1st (inclusive) to June 1st, which included the winter months, the Single-comb White Leghorns laid 555 eggs and the Rose-comb White Leghorns 498, which might be taken to imply that the Single-comb variety included the better layers, compared with the Rose-combs, but during the cold months of December, January, February and March, the Rose-combs laid 302 eggs and the Single-combs 232. Readers are invited to solve the problem of which variety should be entitled to the preference in selecting winter layers, as November and April are also cold months, during some years.

If there is any advantage in the combs it was not manifested in this experiment. According to theory the large single combs of the Leghorns, which exposed broad surfaces to the cold winds, should have been "frosted," thus incapacitating the fowls during the winter months, while the Light Brahmas, with their small pea combs, should have been immune from the effects of severe cold, not overlooking the fact that the rose combs of the Wyandottes were not supposed to be as easily frosted as the single combs of the Leghorns, but "comparisons were odious," and the value of the experiment was not as great as was expected owing to so much being dependent upon each individual member of the flocks. Yet the "comb theory" has not been overthrown, for every farmer and poultryman knows that a large comb is more liable to be injured by severe cold than a smaller one, pro-

vided they are subject to the same conditions.

The cost of the food for each hen, for one year, has been usually estimated at about \$1.00, which included all extras, such as fresh meat, red pepper, etc., but in this experiment the cost per hen was only eighty cents per year, which is about correct for all kinds of hens, although some of the hens used in this experiment were rather fat and out of condition. The profit from each hen was fifty-two cents, which result is not satisfactory to those contemplating the keeping of large numbers, but as the experiment was conducted under unfavorable conditions, some of the hens coming from a distance, the profit was not too small. Only two eggs more each month, per hen, for twelve months, would have disclosed a large profit, as one dollar a year is considered a satisfactory return from each hen after deducting the cost of food, use of capital, land, etc.

It may seem strange that while the White Wyandottes were 86 eggs behind the Single-comb White Leghorns, for the entire year, yet the best laying hen (190 eggs) was of the White Wyandotte variety, and although the Barred Plymouth Rocks, which did not lose any of the members of the flock, ran 266 eggs behind the Single-comb White Leghorns, one of the Plymouth Rock hens laying 185 eggs, being second in the list. To attempt to select the best breed when one hen lays 185 eggs while the flock is 266 eggs below the leaders, is almost an impossibility.

The experiment demonstrates very plainly that breeds consist of individuals which differ as widely as do human individuals or animals. No two foods are alike. To select the best layers is to begin by choosing only the best individuals for breeding purposes, selecting again the best from their offspring, year after year, and keeping accounts with the hens, so as to know what each and all are doing. While the breed is important, and should always be considered as the foundation of success, yet the best breed has not yet been found, but the best hen has been brought to the front at times, and held up to the public view as an example of what is possible under favorable conditions.

Some breeds are better in certain sections than in others, and fowls that are capable of giving good results on one farm may fail on another. Even the owner's peculiarities of disposition and management must be considered, while the amount of feed supplied, the number of meals allowed daily, and the kinds of foods selected, with due regard to quarters, are factors which enter so largely into the whole as to render the matter of breed selection very perplexing. There are even great differences in individuals of the same flock as well as of the breeds. Take a flock of hens that are full sisters, having the same parents, and they will vary in egg production, at least if a year's record is kept, but it is possible that the one heading the list may be at the bottom should another test be made. So with the "best breeds." In many experiments that have been made each breed has at some time been at the top, while the next year, with the same fowls, a breed near the bottom comes to the head. No reason can be assigned for these changes of position, yet they occur every year.

Many curious results are obtained. The winter breeds may prove prolific in summer; the tender varieties of non-sitters have produced eggs during the coldest seasons; hardy birds get the roup and the summer layers escape; some breeds fatten too rapidly, while others consume any quantity of food without being thrown out of laying, and breeds that are known to comprise individuals that are inveterate sitters did not become broody during the entire year, although in the next year were non-sitters tenderly caring for their broods. After all that may be said, much depends upon the management. The man is as important as the breed. With the right man it will not be difficult to know the best, as all flocks should be selected in the shells; that is the selection should begin with the parents, only the fowls produced on the farm being used for breeding purposes. With the right man in charge every hen on a farm should lay at least 200 eggs in one year.

### Keeping Eggs Fresh

Where one desires to keep eggs for a short time only, the best equipment is an egg-rack instead of using boxes or baskets. They can then be quickly placed in a cellar, and as they will be always in full view on the racks there will be a saving

## Poultry Raising

of labor, and, they can be easily assorted when about to ship, as the color of each egg and its relative size may be noticed at a glance. They can also be easily turned on a rack, or the rack may be so constructed as to turn all the eggs at one operation. Eggs keep better and longer when they are turned twice a week. The fresher the eggs when marketed the greater the chances for high prices, but unless one is an expert it may not be easy to buy eggs as fresh as those that can be produced at home with a small flock. Let anyone try an experiment of attempting to procure a lot of prime, strictly fresh eggs, and it will be found difficult. Eggs cannot be safely guaranteed by the dealer, as he knows nothing of them other than what the parties from whom he procured them may claim; and even the farmer, careful as he may be, will occasionally make mistakes. The value of home-produced eggs is greater than the highest price quoted in market, and any method by which the farmer can demonstrate such fact to his customers will assist in increasing his profits.

### Growing Green Foods

One method of deriving a profit from hens is to grow certain foods for the maintenance of the flock, the crops being sold in the form of egg. If the flock is confined in a yard, small patches of vegetables and grass should be grown and the material fed to the hens. Those who grow green foods use oats, rye, corn, sorghum, kale, lettuce, or any quick-growing plants. Such crops are used as soon as they are of sufficient growth (about three or four inches) for the hens to utilize them. As the only cost is for seed, which may be broadcasted over a harrowed surface, considerable green food may be provided, and any weeds or grass that appear simply add to the supply. This is an excellent plan where there are changeable yards, as the yards may be plowed and reseeded as soon as the green food is gone. Some poultrymen sow rape and cut off the crop as desired, as rape will send out more leaves after being cut. Green clover, finely chopped, and thrown into the yards, is always a desirable food that is highly relished.

### Necessary Foods

It is in the summer season when the hens can help themselves in the orchard, on the grass plots, or wherever they may be permitted; but some flocks are kept under conditions that do not afford opportunities for selecting foods. Fowls kept inside of fenced areas must depend entirely upon what is given them, and poultrymen make more mistakes in feeding flocks so situated than in any other direction. The fowls do always receive a full supply of the mineral elements, though allowed an abundance of grain. It is affirmed by many that pounded oyster shells, clam shells, old mortar, flint, etc., provide all the mineral matter required. Others insist that these substances are insoluble and are utilized by the hens exclusively for the grinding of food, that the hens prefer sharp pieces, which are voided afterwards, with the sharp edges rounded. Eggs contain phosphate of lime, but the shells of eggs are composed of carbonate of lime, while flint is mostly silica, providing no material for the eggs whatever. Hens will swallow broken glass, or old china, quite as readily as they will any other hard substances. It is easy to provide hens with ample mineral matter in a digestible and soluble condition by feeding a variety of foods. They will easily secure more than a sufficiency of mineral matter in cut clover, bran, and green bones, substances that are readily digested and assimilated. Corn and wheat are deficient in mineral matter, and are consequently not the best foods for summer.

### Stealing Their Nests

In a recent issue of the FARM AND FIRESIDE attention was directed by a reader to the success obtained by hens that steal their nests, the claim being made that such hens seldom fail to hatch full broods. The subject has been discussed in these columns frequently, and it may be mentioned again that when a hen steals her nest she is under natural conditions to a certain extent. Unless she was at liberty, and had the freedom of the farm, and with every opportunity for exercise, she could not select a nest for herself, but would be compelled to hatch out a brood wherever she should happen to be placed by her owner. It is not because her nest

is on damp ground, as she would be just as successful on top of a haymow, under shelter, or out in the fields hidden with brush. Hens do not prefer moist nests. They simply select cool places in summer and warm places in winter.

When a hen selects (steals) a nest she lays the eggs herself. Of course the eggs are all uniform, being alike in vitality, and if there is a hatch at all it is reasonable to suppose that every egg will produce a chick, which, in fact, is usually the result. On the contrary, when a hen is placed on the nest in a poultry-house, the eggs may not be uniform, having been laid by several hens, some being fertile and some not, according to the condition of the hens that laid them, the farmer taking them from the common receptacle—the egg basket—the sitters being probably disturbed during incubation.

When a hen steals her nest it means that her owner has not been very attentive and may not be in a position to compare results. On well-managed farms, or poultry plants, there is no occasion for a hen to steal her nest, as she will be well cared for by her owner.

### Applying Spray Mixtures

When it is desired to spray the poultry house, or even a bush or tree, it is important that every square inch of space be sprayed. The instrument used should give a fine spray, and while small force pumps, rubber sprayers, bellows, etc., may be used, yet it is not so important to do the work quickly as to do it well, care being taken to force the spray mixture upon the walls and into the cracks. It must be in the form of a fine spray to reach every spot. Such methods of applying it require but a short time, and it is labor well applied if the lice are exterminated.

One of the best remedies is kerosene emulsion, adding an ounce of crude carbolic acid to every gallon of the emulsion, then adding ten gallons of water to every gallon of the original kerosene and soap emulsion. The advertised lice killers are cheap and will also perform all that is claimed in their favor.

### Fresh Water in Summer

It is not always that the live stock and fowls are supplied with an abundance of water, and where the fowls are confined there is often neglect in providing a supply. The omission to furnish fowls with suitable drinking water is one of the features of cruelty to animals. It is a neglect that is decidedly adverse to success, hence tends to diminish individual fancy for fowls, and works detriment to poultry interests. Those who are disposed to claim that there is no profit in poultry, are not qualified to have the management of the same, and in their attentions may be classed with the thriftlessness of parties who keep fowls that get water only when it rains.

Examine your own management of poultry, or take a survey of the means for procuring water on the part of the hens, and it will, to some, prove a surprise as to how easily one can overlook this important matter, for even the most careful are not exempt in such duty, yet a single day's deprivation of water in summer may convert a healthy flock into a lot of sickly and inferior birds.

### Buying Eggs

Those who may buy eggs of the black breeds are disposed to complain if the chicks come out of the shells with considerable white on their bodies. A great many complaints are sent to breeders by purchasers of eggs who wonder why black fowls should produce chicks partly white. Fortunately, however, as they grow, the white disappears, and they assume their natural black color. It is well, however, to inform the novice, so as to avoid disappointment as well as prevent harsh criticism of the breeders.

### Cleaning the Roost

So many methods of swabbing the roost have been suggested, from time to time, that it may be of advantage to add other plans, but the first point is to have the roost movable, so as to be able to take it outside, anoint every portion of it with kerosene, and touch a lighted match to it. This is cleaner and more effectual than any other plan. Before replacing the roost, wipe it with a rag that has been dipped in crude petroleum, as kerosene is irritating to the feet and causes sores. When fire goes over the roost there is at once an end to all lice that may be hidden in the cracks, and the fowls will be more comfortable during nights by not being annoyed by the vermin.

*P. H. Jacobs.*



## New Treasurer of Ohio State Grange

THE selection of C. G. Williams, Agriculturist of the Ohio Experiment Station, to succeed W. W. Miller, will meet with the approval of the state. It is wise to select a man who is known and possesses the confidence of the people whom he serves for so responsible a place. Mr. Williams is one of the best-known and loved of Ohio's workers. Modest, unassuming, quiet, yet with a prodigious capacity for work, he is a fit successor to the man who preceded him. Moreover, he was intimately associated with the late treasurer. Mr. Williams has never been an office seeker in the Grange. He has been a service giver, liberal and devoted. He typifies the ideal of Grange in that "the office should seek the man, not the man the office." State Master Derthick has chosen wisely and well.

C. G. Williams is a native of Gustavus Township, Trumbull County, Ohio. He received his education in one of those fine old academies for which the Western Reserve is noted, and which have contributed more to its distinction as an educational center of the state than any other thing. He owns about three hundred acres of land, raising wheat and potatoes, and conducting a dairy. He owns a part of the old family home, which was taken in 1833 by his grandfather, who came to Ohio from Connecticut.

Several hundred years ago his family adopted the motto: "Cognosce occasionem" (know your opportunity). The days have brought opportunity for work, and he has known them and their mission. To-day he ranks as one of the foremost plant breeders in the country. Quietly, persistently, faithfully he has worked. Ohio is just waking to the fact that the man they esteemed so highly is bringing to her renown, and maintaining her position as a producer of great men and women.

Mrs. Williams is a woman of gracious presence, with fine artistic ability. They are a welcome addition to the official circle of the Grange.

## Denaturized Alcohol

The House, with its ear close to the people, recorded but seven votes against the denaturized alcohol bill. It is now in the Senate, where it will likely lie for a long time, unless the people unitedly and vigorously demand its speedy enactment. The Standard Oil Company and the manufacturers of wood alcohol are fighting it with all the adroitness and shrewdness known to these experienced corporations. They have their senators on the floor and their paid lobbyists.

But all these can be overcome if the people are determined and vigilant. The voice of the people is even more potent than money, but it must be heard. There must be no guess as to its meaning. The daily papers, the agricultural and trade journals have exploited the matter, showing the vast good that would come to the consumer with this new fuel in general use. No one can plead ignorance, and he who is indifferent commits as great an error as one who votes against it.

Write your senators, get your neighbor to write, circulate petitions. If you cannot do this much to free yourself from the yoke of corporations that have plundered you for years you deserve to bear the burden. Do not be misled by amendments entirely foreign to the subject. What the public is most interested in is the removal of the \$2.07 tax on grain alcohol, that it may be used as a safe, clean, economical heat and light. It will be pretty hard to corner this supply of fuel.

## Pomona Grange at Ashville, Ohio

Nebraska Grange, No. 64, Pickaway County, entertained Franklin County Pomona, April 18th, in truly regal style. As the Grange hall is located in the country, Nebraska rented two halls in the village, one for the meeting and the other for the dinner. Reception committees met incoming cars and looked after the comfort of the guests. The dinner was a royal feast of good things, and was so perfectly served that there was no confusion. Every detail had been planned and the organization was perfect. Each waiter had certain services to perform. No enterprise of any moment would be undertaken without the Cromley and Courtwright families leading, nor would it be perfect without one or the other playing a joke that would be known only at the moment when most were around to see. Senator Cromley secured the badges but did not get any for the cooks and waiters. "We'll fix that," said Mrs. Courtwright, and told her daughter to select some Latin word suitable. She chose *copia* (abundance) and all acclaimed the appropriateness.

Thirty-seven were initiated into the Fifth degree. Madison Grange of Canal

## The Grange

Winchester conferred the degree in a beautiful and impressive manner. Many prominent people took this degree, including several from University Grange. Pickaway and Franklin counties compose the membership. The reports of the Granges showed most of them in a flourishing condition. Senator Cromley said that there was no other Pomona in Ohio that could boast representatives from the three great departments of Agriculture. The College of Agriculture of the Ohio State University, through its faculty, the Experiment Station through a member of



C. G. WILLIAMS

the Board of Control, John Courtwright, and the Board of Agriculture (of which Senator Cromley is a distinguished member). Each was called upon to speak, and, as was natural, each spoke of the appropriations received the last session of the General Assembly. There was a feeling that agriculture was fairly dealt with.

About two hundred attended this meeting. It was voted that Franklin County Pomona should picnic at the University grounds early in June. Professor Decker raised a laugh when he told them that the University would furnish space and water. At adjournment Professor Decker took pictures of the crowd.

## Ohio Bond Sales for March

Various subdivisions of Ohio sold, during the month of March alone, above \$1,500,000 worth of bonds for public improvements. They draw interest, in every instance above three and one half per cent which is absolutely sure to be paid, no matter how hard the financial conditions may be on other forms of investment. If they bore but a very moderate rate of tax, say one half of one per cent, it would add to the state revenues over \$7,000, enough to build two miles of hard roads in most sections of the state. And this represents the sale for one month only. It is predicted that more than \$3,000,000 worth of bonds will be sold in the next three months.

## C. B. Galbraith

Among Ohio's prominent patrons is C. B. Galbraith, state librarian. Mr. Galbraith is a native of Ohio, and received his education in the country schools, and later on at an academy and Mt. Union College. He served efficiently as school superintendent, was called to his present responsible position in 1894, and since that time has served his state well.

Under his management the various departments of the library have grown to proud proportions, especially those of history and political economy. He has collected originals of the songs of Ohio song writers, and a biographical sketch of each. As far as possible complete files of Ohio newspapers have been added, as well as all Ohio material that will possess value to later generations.

Under the supervision of Mrs. Galbraith the traveling library has grown to splendid proportions. About thirty thousand books are in this department.

During the last General Assembly Mr. Galbraith published bulletins with references to magazine and book literature on principal public questions. Courtesy,

efficiency and economy have marked his administration.

Professor Galbraith was a charter member of University Grange. He believes that the burden of reform rests on the farmers, and that they will rise to their possibilities and responsibilities. He is kind, loyal and true. His influence is cast for the betterment of the people. Such men in a public place are a power for civic righteousness and private good.

## The Observatory

Hasty legislation in the House may be sometimes criticized, but the freezing process of the Senate is an abomination.

If private business was managed with as little attention to business principles as is the public, most people would be in the poorhouse.

State Master Newcomb, of Colorado, is actively arranging for the next meeting of the National Grange which convenes in Denver next November.

The public will not be deluded by the charge of sensationalism against Mr. Garfield in his report on the Standard Oil Company's methods any more than it tolerated the whitewash of the beef trust investigation.

After all "The Man With the Muck Rake" collected a goodly lot of garbage that could well be spared. The conditions justified his existence.

Fairfield County Pomona held a splendid session at Basil, Ohio, April 28th. Officers installed were: J. V. Tussing, Master; James Goss, Secretary; J. D. Downhour, Lecturer. Reports of Granges showed them to be in a flourishing condition. The dinner was elegantly served. Violets were placed at each plate. Two cakes were decorated in pretty ways. One had P. of H., and another, Grange 1534, in violets.

Miss Edna Campbell, Secretary of the Washington State Grange, is but seventeen years of age, and is probably the youngest state secretary in the country. Miss Campbell is ambitious to secure a College education and is making a heroic effort to work her way through college. She will likely succeed. All honor to those who turn circumstances to their account. It means hard work, little play, poor clothes, but, combined with integrity



C. B. GALBRAITH, OHIO STATE LIBRARIAN

and steadfastness of purpose, it will win in the end.

The man who resorts to slander and misrepresentation to tear down another and advance his own interests, gains no respect from honest men and women. Men and women whose impulses and reasoned acts consort with such squint-eyed means for self-advancement, will meet the punishment their villainy deserves. Nature is awfully, sternly just.

*Mary E. Lee*

## The Simple Life

All Patrons of long standing who have had the privilege of listening to the reading of the manual should have so absorbed the spirit of the letter that all obstacles are as things of the past. But we will suppose that all the housewives who read this are not Patrons of Husbandry—hence a few suggestions may be acceptable.

If you are a farmer's wife, enjoying God's pure air, plenty of sunshine and the freedom that a country life brings, I congratulate you on being in the best position and location for living and enjoying the simple life.

Ella Wheeler Wilcox has given us an excellent motto that would be well to hang over our dressing-table. "If you haven't what you like, try to like what you have." The spirit of simplicity, the faculty of being happy and making the best of things under any circumstances, and imparting brightness to other lives—therein lies the secret source of the simple life.

Take time to live. Don't let things around you make life a drudgery.

Begin the day right; on rising in the morning see that your windows are wide open, then spend from five to ten minutes or as much more time as you can spare in taking the deep-breathing exercise. A cold shower-bath is also very beneficial to many people, but unfortunately in most of our country homes the luxury and conveniences for a bathroom are for the present denied us. But if the city person has some advantages and luxuries lacking in our homes, God's pure, smokeless atmosphere keeps the balance even.

How many of us who have not lived in the city, on waking, have been forced to realize the sooty, impure air that was being pumped into our lungs. Some of the great cities are compelling manufacturing plants to consume their own smoke.

We know we are living in an age of great wonders; notable events have taken place since we first saw the light of day, but it is also an age for nerve-breaking force—too much of this "hurry-up," bustling activity. It is sapping the life of thousands in our big cities, and proving one of the greatest and most dangerous obstacles to living the simple life of which Charles Wagner writes.

I have visited in country homes (not always in the busy season, when there might be an excuse for turning night into day), and found the nerve-wearing rush.

"All work and no play makes Jack a dull boy." They pay no heed to the old adage, but keep right on until thoroughly tired out, and with little spirit left they tumble into bed.

Take time to enjoy the family life—evenings is a good time to strengthen the bond of sympathy between parent and child. Notice the growing flowers, the croak of the friendly frog. Join in a game of ball. Nothing will win and hold your child so much as the knowledge of your being one with him. Froebel says "Come, let us live with the children."

It is not so much the ever-present work, nor is it necessarily the physical condition of our health that hinders us from enjoying the simpler mode of life; it may be the method or lack of method that we use to accomplish our daily tasks.

Do we on retiring for rest, in imagination, do the next day's work? It may be we had planned to clean house. I have known of cases where, when morning came, instead of being refreshed and feeling equal to wrestle with any task that may come our way, we are oh, so tired!

When you leave the schoolroom don't carry its burdens away.

Dame Fashion is a very tyrannical mistress to those who would follow her lead. Don't try to keep pace with her. We shall be thought just as much of if we choose the simpler modes of dress, and thus partially overcome one obstacle that hinders many a person from having the leisure in which to enjoy other things that count for more than dress.

Another aid to surmounting the difficulties that may cross our pathway—get outdoors as much as possible; there is no tonic for the nerves so good as that of getting near the heart of Mother Nature. Heed Bryant's advice when he says: "Go forth under the open sky, and list to Nature's teachings, while from all around earth and her waters, and the depth of air comes a still voice."

The obstacles that hinder our living the simple life are so varied; what are stumbling blocks to some, are to others as mere trifles. It hinges on our point of view. The greatest obstacle of all is the overcoming of self.

"Let's oftener talk of noble deeds,  
And rarer of the bad ones,  
And sing about our happy days,  
And not about the sad ones.  
We were not made to fret and sigh,  
And when grief sleeps to wake it,  
Bright happiness is standing by;  
This life is what we make it."

Kansas.

LOUISE WESTGATE.



## Tales of the Green Bag

BY MORRIS WADE

THE KNIGHTS of the green bag and the gentlemen of the judicial gown can be much merrier than they seem when in the environment of the court-room. They see all sides of life, and while they have to do largely with its "trials" a happy sense of humor helps them to see an amusing side to some of the most depressing of these "trials."

Lacking a sense of humor a man should never be a lawyer, and the keener his own wit the more successful is he likely to be. Those who deal constantly with the seamy side of life have need of all the sense of humor heaven may vouchsafe them, and the lawyer with plenty of this good gift to his portion may now and then find himself grinning in the midst of the most depressing of criminal proceedings in the court-room, while it sometimes requires all the self-control of which the most dignified judge is capable to keep him from laughing uproariously on the bench. The quick wit and the dense stupidity of witnesses are alike productive of a good deal of fun. The garrulous witness, the frightened witness, the would-be-smart witness, the weeping witness, the verdant witness are all amusing under certain conditions, while the lawyers themselves now and then add to the merriment of the court-room.

Even the judge smiled broadly when an Irishwoman on the witness-stand in a Boston court-room referred to her husband as being "down on de beach" for the summer, and closer questioning revealed the fact that he was serving a six-month's sentence for some minor offense in one of the city's penal institutions a few miles down the harbor.

There is a story current to the effect that a lawyer who had been badgering a boy of fourteen or fifteen on the witness-stand finally said to him:

"Now, boy, you say that your father told you a great deal that you have said. Isn't it true that your father is a notoriously untruthful man and, more than that, isn't he an idle and worthless fellow, supported largely by his wife and children? Isn't that true?"

"I can't say as to all that," drawled out the boy. "Supposing you ask father himself. He's over there settin' on the joory."

"Did you say anything disrespectful to the complainant?" asked a lawyer of a woman on the witness-stand.

"No, I don't recollect as I did," was the reply, and then she added, "I did say as I pitied her husband for being tied to such a turrible slob, and that I wouldn't wipe my shoes on her, but that was all. I was reared up to be respectful to even them as are beneath me, your honor."

A witness of the "wound-up" type was on the stand and the prosecuting attorney said to her:

"Do you know the defendant, madam?"

"Do I know which?"

"The defendant."

"The what?"

"Why, the defendant—Martin I believe his name is, Joseph Martin. Do you know him?"

"Do I know Joe Martin? Well, if that don't tickle me! Why, Joe Martin's sister Hattie and me was like sisters for years and years. Our birthdays was the same day and we married cousins and there's only four days' difference between the ages of our children, my boy bein' born on the ninth o' May and her girl on the thirteenth of the same month and—do I know Joe Martin? Why his wife is an own second cousin o' mine on my mother's side and, fact is, Joe used to be rather sweet on me, didn't you, Joe? And now to be asked if I know him. Why, Joe and my brother Hen were—"

"That will do," interrupted the judge, whereupon the woman pointed to the man in question and called out with a convulsive giggle:

"Say, Joe, he wants to know do I know you. Ain't that too killin'?"

A lover of fun summoned hastily to serve on a coroner's jury related afterward that one of the other jurymen was an extremely stupid appearing German, manifestly unaccustomed to such service, or to the workings of the law in any way. The dead man was lying in a corner of the room covered over with an old quilt. While the rest of the jurymen were discussing the case the stolid Teuton wandered over to where the dead man lay, lifted a corner of the quilt away from his face, and called out in amazement and alarm:

"Mine Gott, shentlemen! this man is dead! Come quick, shentlemen! Mine Gott, vat has died heem?"

This failure to grasp the situation was almost equalled by that of a jurymen who returned to the court-room to ask for in-



## Around the Fireside

structions after the jury had retired to deliberate on the case.

"On what point do you want instruction?" asked the judge.

"We want to know, your honor, whether the prisoner is guilty or not," was the dazing reply.

A western jury sitting after deliberating for some time on the brief evidence given in the case of a man who had been lynched for lot jumping returned this brief and comprehensive verdict:

"We find that the deceased came to his death from lack of breath caused by a rope around his neck placed there by parties we do not wish to give away."

A Massachusetts judge says that he was one evening called into the parlor of his house to find there a portly, middle-aged colored woman who greeted him quite as if he were a dear old friend, and then remarked that she was "jess passin' by" she thought she would "jess drap in" and see him about getting a "writin' ob divo'cement" from her husband.

"I am not the proper person to see about this matter," said the judge.

"You's de jedge, isn't you?"

"Yes, I am, but—"

"I reckoned a jedge could make out a writin' ob divo'cement jess any time. Ise got sixty-five cents to pay fo' hit."

After assuring her of his inability to accept this tempting emolument in return for the paper of "divo'cement" the judge asked:

"Why do you want a divorce?"

"Oh, so's we kin be mahied again in some kind o' style. We nebbah had no weddin' to speak ob, an' we been talkin' hit ovah an' sayin' how if we was divo'ced we could git mahied agin and hab a weddin' wuth while. Yo' see, jedge?"

## The Old Flag-House

THE small two-story brick structure at 239 Arch Street, Philadelphia, where Betsy Ross lived during the Revolutionary War, and which is known throughout the Union as the "Old Flag-house," will formally be turned over to the United States Government on June 14th next, the date being the anniversary of the American flag. A million stockholders of this property, scattered throughout every state in the Union, will be interested in the event.

On October 22, 1898, a meeting was held in the "Old Flag-house" under the direction of John Quincy Adams and Charles H. Weisgarber, and the American Flag-house and Betsy Ross Memorial Association was formed, and later incorporated. The object was to purchase the historic building and save it to the National Committee. This was accomplished through the issuance of the membership certificate. The purchase price of the house was \$25,000. It was money well expended, and willingly contributed by a patriotic people. The ceremonies on June 14th promise a big event in the old Quaker City, and President Roosevelt will be present and participate.

## Count Witte's Retirement

COUNT WITTE, unquestionably the biggest man in Russian public life, retires from the premiership unwept and unsung, amid the rejoicings of his enemies. Count Witte's estrangement with the czar seems complete, yet even to-day it is predicted that when the next great crisis comes the

czar will be forced to again summon the great ex-premier to his aid.

The successor of his office is M. Goremykin, former minister of the interior. Goremykin has been prominent in Russian politics for many years. His administration as minister of the interior was not marked by harshness and his name has never been mentioned as one of the likely victims of the terrorists who assassinated two of his immediate predecessors. Goremykin's elevation and Witte's retirement equally created amazement. The former is now only regarded as a reactionary, but the general opinion is that he is not equal to the task of facing the coming crisis.

The Russian ship of state has seemingly dropped its pilot. Witte seems the victim of imperial ingratitude. The czar has dismissed the man who saved his country from a disgraceful peace at Portsmouth, who steered the ship of state safely through the succeeding revolution, and later replenished the exhausted national coffers by a foreign loan.

M. Goremykin, the new premier, was exposed by Witte in 1899, and since then has been the retiring premier's unrelenting enemy. At that time the former minister of the interior made a report to the emperor to the effect that the stories of famine and suffering which were said to exist in certain provinces were untrue. Witte, who then was minister of finance, thereupon produced documents to prove that the conditions in the interior were as they had been represented to be. When the emperor confronted M. Goremykin with this he is said to have fallen on his knees



WITTE



HOME OF "OLD GLORY" AT PHILADELPHIA, TO BE FORMALLY TURNED OVER TO UNCLE SAM ON JUNE 14th FOR FUTURE SAFE-KEEPING

before the emperor, to have wept and to have begged forgiveness. The minister was so overcome that the emperor himself brought him a glass of water. Later M. Goremykin took part in the Von Plehve cabal which drove Witte from the ministry of finance in 1903.

M. Goremykin is considered a mediocre man of insignificant appearance as well as capacity. He wears side whiskers and looks like an English butler. While for some time he has been called a Liberal, it was only in contrast with such men as Von Plehve and M. Sipiaguine, the late interior minister. He began his career in the ministry of justice, becoming assistant minis-

ter, from which post he was called in 1895, as a protégé of the dowager empress, to become minister of the interior. The student troubles, the forerunners of the recent revolution, were then just beginning, and M. Goremykin lacked the energy necessary to end them. He was supplanted in 1899 by M. Sipiaguine. Last year when Interior Minister Durnovo legislated out of existence the rural commission of which Witte was president, and which had been investigating the agrarian question several years, M. Goremykin was appointed head of the agricultural commission which supplanted it. When he became premier, Witte retaliated on Goremykin by dissolving the agricultural commission.

The new premier comes from a noble but not prominent family of Novgorod province, where his estates are situated. They are especially noted for the excellence of their cows and their dairy products, which are sent to St. Petersburg. In fact, M. Goremykin practically supplies the capital with milk.

## Transition

The vernal sun is shining bright,  
Giving the earth new life and light;  
There's a song of bird in matin hour—  
Vesper praise in leafy bower.

No longer looks the landscape bare—  
'Tis clothed in verdure everywhere;  
In dale and mead and woodland wild  
There's scent of rose and zephyr mild.

The glebe adorned by Nature's hand  
Brings joy anew throughout the land;  
No skill of man—no painter's brush,  
Gives Nature's tint—the rose's blush.

Old Winter's gone, the springtime's here,  
No leaf, no branch is brown and sere;  
The dead have ris'n from Winter's tomb,  
And now are clothed in vernal bloom.

We plainly read from Nature's book—  
From field and glen and singing brook,  
That beauty fades, that men decay  
To bloom again—to live alway.

—George Dallas Mosgrove.

## The Big Ships of the Ancients

BIG ship talk has been given much attention by the press of the world. Almost annually the record for bulkiness in ocean steamships is broken. By way of diversion then, something about the ship-building abilities of the ancients might be entertaining.

We can, perhaps, best appreciate the size of the old-time ships by comparison with the great modern-built "Baltic," the largest ship in the world, and which is 726 feet long, 55 feet wide, and 49 feet deep, with a tonnage of 23,876.

Noah's Ark as told by the Scriptures, was 450 feet long, 75 feet wide and 45 feet in depth. Her tonnage is estimated at 15,000 tons.

The ancients were ever fond of big things. A ship built by Ptolemy (Philopator) is said to have been 420 feet long, 57 feet broad and 72 feet deep from the highest point. History tells us that the vessel had four rudders, or steering oars, each 45 feet long, that she carried 4,000 rowers, also 3,000 marines and a number of servants. The oars were 57 feet long and the handles were weighted with lead.

Another ship, the "Tholamegus" says the "Scrap Book," built for one of the Ptolemies, is said to have been 300 feet long, 40 feet broad, and 60 feet deep. This was a far more magnificent vessel than any previous one. An Alexandrian historian, Catlixenus, in describing her, speaks of her having colonnades, marble stairs, and gardens.

Another great vessel, historical by reason of its size, is one built by Hiero, King of Syracuse. Her dimensions are estimated to be large from the description of her cargo, and the number of her decks and houses.

She is supposed to have been sheathed with lead, and accomplished at least one successful trip. She had three entrances, the lowest leading to the hold, the second to the eating-rooms, and the third was appropriated to the soldiers. There were thirty rooms. The floors of all these rooms were laid in stone mosaic work. There was also a temple of cypress, inlaid with ivory, and dedicated to Venus. The mainmast was composed of a single tree, and the vessel carried four wooden and eight iron anchors.

As a freight carrier, she would rival the largest of our ocean tramps. It is recorded that one or two of the launches belonging to her would carry about eighty tons. This vessel is said to have carried "60,000 measures of corn, 10,000 jars of Sicilian salt fish, 20,000 talents' weight of wool, and of other cargo 20,000 talents, in addition to the provisions for the crew."

These are the notably big vessels of ancient times, but the supposition is that, as rulers, whether king or people, were as emulous in those days as these, other big craft were also built.



### The Most Wonderful Blind Person in the World

BY FELIX FAXON

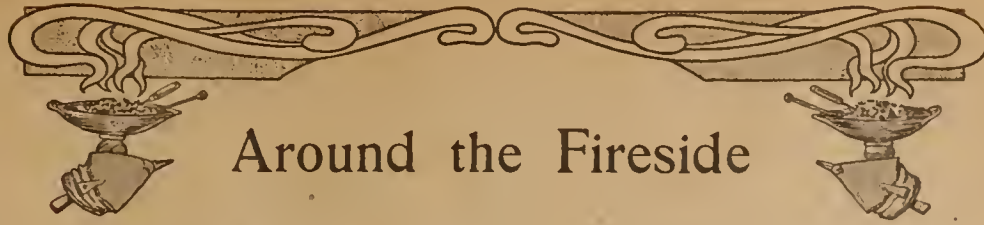
WITHOUT question the most remarkable example that has ever been given to the world of the possibilities of educating the blind, deaf and dumb is Miss Helen Keller, whose achievements along the line of education seems little less than phenomenal. Deprived of the sense of sight, hearing and speech, few young women of her age in the world can equal her in her mental attainments. Graduating from Radcliffe College with the highest honors, she is devoting her life to the cause of education for the blind, the deaf and the dumb. Miss Keller is now especially interested in the movement for improving the condition of the blind after they have received their education in our institutions for the blind. So many of them find it difficult to turn their education to account. They still need one great thing, and that is opportunity—a chance to work and become self-supporting. Without this opportunity the education acquired in the face of such tremendous obstacles is of little value. Writing of this fact not long ago, Helen Keller said: "It is hard to be blind even when every ameliorating circumstance is present. But blindness need not be so hard as it has been in this country. The principal cause of the failure of the blind in America to become at least partially self-supporting is lack of organization and cooperation. Opportunity to work is the boon the blind ask of their fellow-men. Work, profitable work, robs blindness of its cruellest sting; it pervades our darkness with the light of joy and contentment."

We must admit that wonderful advance has been made in the methods of educating the blind since that long-ago day when Dr. Howe began his great work that made Laura Bridgman one of the wonders of the world to many. Even twenty-five years ago intelligent people would have scoffed at the mere suggestion of a deaf, dumb and blind person attempting to graduate from any of the higher institutions of learning. The obstacles in the way of such an achievement seemed absolutely insurmountable, but Helen Keller has demonstrated the fact that it could be done.

Miss Keller is now in her twenty-sixth year. She was born in Tuscumbia, Alabama, but has spent the greater part of her life in Boston acquiring her education. Her home is in the beautiful old town of Wrentham, a few miles from Boston, where she lives with her companion and instructor, Miss Sullivan, who has recently married a Mr. Macy. Miss Keller has been taught to speak orally, so that it is not difficult to understand her, but she speaks in a monotone and without the inflection it is impossible to teach a person who cannot hear her. Her command of the English in writing is remarkable. Her diction is beautiful, as one must discover by reading any of her recent writings. Her article on the hand, contributed to the "Century Magazine" a year or two ago, has been pronounced one of the most wonderful literary productions of recent years, and her essay on "Friendship" is worthy of any writer in any age of the world. Her book, "The Story of My Life," is a book that every girl who feels that she is handicapped by any physical condition should be read, and find inspiration in it. Like Booker Washington's "Up From Slavery," it is a story of achievement in the face of tremendous odds. Both books are the stories of the triumph of courage combined with unfailing industry.

Helen Keller was not born deaf, dumb and blind. This three-fold affliction came to her soon after she was a year old as the result of an attack of acute congestion of the stomach and brain. Writing of this great affliction Helen Keller says: "One brief spring, musical with the song of robin and mocking-bird, one summer rich in fruit and roses, one autumn of gold and crimson sped by and left their gifts at the feet of an eager, delighted child. Then, in the dreary month of February, came the illness which closed my eyes and ears and plunged me into the unconsciousness of a new-born baby. Early one morning the fever left me as suddenly and mysteriously as it had come. There was great rejoicing in the family that morning, but no one, not even the doctor, knew that I should never see nor hear again."

When she was six years old Helen Keller's father took her to Washington to see the famous Dr. Alexander Graham Bell, who advised that a teacher for the child be secured from the Perkins Institution for the Blind, in Boston, and it was in this way that Miss Sullivan began her education of Miss Keller, and from that day to this they have never been separated. Writing of the beginning of her education under Miss Sullivan, Helen Keller says:



## Around the Fireside

"Thus I came out of Egypt and stood before Sinai, and a power divine touched my spirit and gave it sight, so that I beheld many wonders. And from the sacred mountains I heard a voice which said, 'Knowledge is love and light and vision.'"

The first word Helen Keller learned under the instruction of her teacher was the word 'doll.' The blind children at the asylum in Boston had sent the doll to the little blind girl "down South," and Laura Bridgman had dressed the doll. Referring to this fact Miss Keller says in her book:

"When I had played with the doll a little while, Miss Sullivan slowly spelled into my hands the word 'd-o-l-l.' I was at once interested in this finger play and tried to imitate it. When I finally succeeded in making the letters correctly I was flushed with childish pleasure and pride. Running down-stairs to my mother I held up my hands and made the letters for doll. I did not know that I was spelling a word or even that words existed; I was simply making my fingers go in monkey-like imitation. In the days that followed I learned to spell in this uncomprehending way a great many words, among them pin, hat, cup and a few verbs like sit, stand and walk. But my teacher had been with me several weeks before I understood that everything has a name."

This was the beginning of an education that has been a source of astonishment to many who felt that if the blind could be taught to simply read and write it was about all that could be expected of them. The education of Helen Keller represents years of the most unselfish devotion and infinite patience on the part of her teacher, as well as years of courage and hard work on the part of the blind girl, in whose career the whole nation has taken a kindly and eager interest.

### The White Old Kentucky Home

GEN. HENRY WHITNEY CLEVELAND is already and favorably known to the readers of FARM AND FIRESIDE by his short serials, "The Black Oath," a reply

the author, now Rev. Cleveland, LL. D., the well-known evangelist, is not in any way intended to detract from the fame of Stephen Collins Foster, for Doctor Cleveland is one of the committee to do him honor, as also to collect Daniel Boone and other relics for the Kentuckians' Home-coming celebration. "The White Kentucky Home" was written to be sung when on the staff of Gen. Bennett H.



REV. HENRY WHITNEY CLEVELAND

Young, of Kentucky, at the Atlanta Reunion, U. C. V., many years ago, and the author has been famous since the war as a promoter of colored schools and of patriotic, non-partisan legislation. It was to him Gen. U. S. Grant wrote a six-page autograph letter on the death of Vice-President Alexander H. Stephens, of Georgia. Rev. Dr. Cleveland was in Southern service from the fall of Fort Sumter to the surrender of R. E. Lee; but after the con-



HELEN KELLER IN HER STUDY

to "The Clansman" of Rev. Thomas Dixon; "The Mississippi Night," a few pages describing the building of the raft and Scipio Africanus, unfortunately omitted; and "The Doorless Room," a story of historic Stony Point, New York. The poem which will follow this brief notice of

fict, a builder of schools for negroes and the uncompromising enemy of the Ku Klux Klan. He held that the oaths of parole and surrender made it perjury to openly or secretly oppose the due effect of the constitutional amendment. He shares with Father Ryan the fame of being one of

the war poets of the South, and his "Fair Comrades of the South" appeared in an early issue of the FARM AND FIRESIDE. He has spent nearly twenty years and a large sum of money in determining the true birthplace of President Lincoln, and is the owner of the original marriage certificate of Thomas Lincoln and Nancy Hanks, June 12, 1806, nearly three years before the birth, in 1809, and effectually and forever disproving the slanders upon the president's mother. Also of the last letter of the martyr, old John Brown, and some two thousand other historic letters. Doctor Cleveland is also kinsman of Horace Greeley and Grover Cleveland.

### The White Kentucky Home

(Dedicated to Commander Stephen D. Lee, U. C. V.)

There's sunshine bright in the Old Kentucky Home,  
And springtime—with children at play,  
But a dark war cloud comes a-rolling up the sky,  
And the gloom grows deeper every day.  
The North wins the race with A. Lincoln President,  
And the rights of the South lose the day,  
For the stars begin to fade in the Union diadem  
And our leaders utter sadly—"Must Away."

### CHORUS

The wife clings to us and the children are in fear,  
For the saddle's on the charger to-day;  
And the negroes in the cabin to one another tell,  
"Young Marster's to the wah gwine away."

Old Carolina leads us in the movement of the States,  
And Kentucky feels the spur—though behind;  
We are not all secesh—for the movement is so fresh,  
There are many cannot make up their mind.

See our Breckinridge and Johnston and heroic Morgan men,  
With Preston and the Orphans rush afield,  
For the sky grows blacker as the boys in blue come down,  
Resolved to make the South die, or yield.

### CHORUS

The sweetheart makes roscettes and the sister pins them on,  
"The Girl I Left Behind Me" bugles play;  
Wife's gown makes the banner and we take the route step,  
And the soldiers to the war gone away.

We muster in by thousands and we take the oath to fight.  
See, from Maryland to Texas, come the gray,  
With Georgia, Alabama, Mississippi in the van,  
And gallant Louisiana, lead the way.  
With first the "Stars and Bars," then the Johnston "battle flag,"  
So the boys all follow fife and drum;  
While Davis in Montgomery and governors in states,  
Cry aloud in their gladness, here they come!"

### CHORUS

We marched barefooted and we suffered heat and cold,  
And we met the odds of thousands—sun by sun;  
With our colors shot to pieces and our powder very scarce,  
While the looking girl said softly—"Bravely done."

So girls, we did our best, and we had but little rest,  
For we marched and we fought, far and near;  
'Tbo the gray hung in tatters—all bright we kept the gun  
And the Blue learned the boys in gray to fear.  
Four years we bore the cause, on our bayonets of steel,  
With our flags, from our hearts, crimson dyed;  
And the mothers raised boy children and the daughters hoed the corn,  
But their millions strove against us like a tide.

### CHORUS

Still the wife looks the roadway, with her hungry children 'round,  
And the stalls are all empty to-day;  
And the negroes in the field say "It's mighty hard times  
Since Marster's to the wah gone away."

At last it all is ended and Johnston, Lee and Smith,  
Droop the torn flags they can no longer save;  
With many dead in prison and many dead afield,  
And the South all a ruin and a grave.  
With children dead with hunger and sweethearts thin and pale,  
And our homes burned, or desolate and drear;  
We Johnnies marching homeward, knew we all had done our best,  
And our loved ones blent the welcome with the tear.

### CHORUS

So unlimber the old cannon, take the saddle from the steed,  
Hang the saber 'till the Spaniard makes a fray;  
While the negroes in the cabin to one another tell,  
'Old Marster's from the wah come to stay."


—Henry Whitney Cleveland, Colonel C. S. A., President Davis' Commissioners Staff and Old Georgia Line, 1861 to 1865.

General John B. Castleman, President of the Horse Show Association of Kentucky, a hero of both Civil and Spanish wars, has undertaken for the Daughters of the Confederacy, to look after the musical arrangements; but General Cleveland has added a stanza, not given above, for exiles and prisoners of war, and a general chorus more suited to be sung with the sweet old music of the negro minstrel.

### OLD KENTUCKY HOME.

Weep no more fair children,  
Smile e'en while you pray,  
At duty's call, father gave up his all,  
And is now to the war gone away.

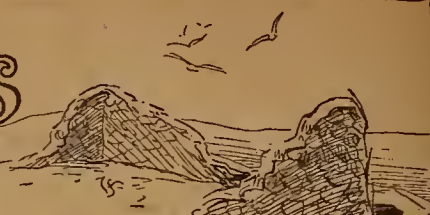




# Behind Adobe Walls

## A Story of the Old Santa Fe Trail

by Mary McCrae Culter



Fort Bent, 1840. Fort Bent, 1906.

[CONTINUED FROM LAST ISSUE]

CHAPTER VII.

SO QUIETLY were arrangements made that the general mass of the dwellers at the fort were not much alarmed by them. Indian scares had been so many and so frequent that they excited but little fear any more. Was not the fort well stocked with water, provisions and ammunition? Were there not men enough left to garrison it fully? Were not the walls considered impregnable to Indians? So they went on with their customary routine of work or amusement, only stopping long enough to grumble over the "unnecessary" crowding of so much extra stock into the plaza, and the noise and confusion incident thereto.

As soon as darkness fell, as a shield to his movements, the Cheyenne started on his important journey. A few rods from the fort he entered the shelter of the timber along the river; but here the greatest caution was necessary. Spies from the enemy were liable to be encountered at every step.

Slowly and cautiously he made his way from tree to tree, pausing at every breath of sound, watching with keen eye every suspicious spot. He made his way thus, until he reached the place where a deep arroya emptied into the opposite side of the river. Crossing swiftly, he entered the dark channel between whose steep banks there was comparative safety. Following these deep passageways, in the darkness making his way from one arroya to another, he came at last to the strip of country now known as "The Cedars." This was an ideal hiding-place for Indians, being far from the settlements of white men, and its abrupt hills and deep gulches being heavily timbered with a low, scrubby growth of cedar.

Here, as the Cheyenne expected, he discovered a Comanche encampment. Being so far from the trail of the white men, and the alliance among all the tribes being so strong, the usual precautions against lurking enemies were not observed by the savages, who were intent on their preparations for the approaching attack upon Fort Bent. For this reason the Cheyenne found little difficulty in spying upon the encampment.

The teepees were pitched in a little valley well surrounded by the timbered hills. Slipping from rock to rock, and from cedar bush to cedar bush, the Cheyenne was able to reach a place almost directly above the camp, from which he could count the numbers of the hostiles, and make note of their preparations. This done, he slipped away through timber, gulch and cañon, until he reached the more open country to the southwest. Here he could venture to more level ground, and make better speed on his journey. And so, by devious ways he came to the place he sought, and delivered his message for assistance to Colonel Vernon.

Ere night fell, every preparation had been made at the fort for the attack which might come at any moment. The presence of extreme danger had completely conquered Donald Graeme's pride. What recked he of past misunderstandings and angry words, when death might be but a few hours distant? Belzy's prompt search for Perdita aroused Donald to instant decision. Dorothy needed his protection and his comfort. Jack Raynor, who was supposed to be her chosen protector, was hundreds of miles away, and might as well have been in the moon for all the help he could possibly give in this hour of danger. Perhaps, after all, he had been mistaken, and Jack was the one to be pitied and not himself. Had she not played "Bonnie Doon" with a sob in every note? So he kept close watch for his opportunity.

The usual concourse gathered in the plaza that night. Perdita and Cara were there, playing and singing, to the delight of their motley audience. From his sheltered corner, Donald saw Dorothy slipping away up the steps that led to the tower. A few minutes later he followed her. She was leaning against a casement, looking out into the silence and dimness of the night. He stepped quickly to her side and put his arm about her.

"Dorry," he said tenderly, "have we not suffered enough? Death may be but a few hours away; then why should we let pride and doubt and misunderstanding separate us in the little while that is left to us? Tell me, dearest, that you do care for me still. I know that you do, although you have been so cold and unapproachable. Else why did you play 'Träumerei' and 'Bonnie Doon'?"

His voice was low and pleading, and carried with it the intense longing of his heart.

Dorothy drew herself from him, and her voice was hard and cold as she answered:

"It is Perdita whom you should seek in this hour of danger. Have you not promised to marry her soon? I did not come to Fort Bent to cause you again to become faithless. Perdita worships you. She has a right to expect your protection now. I played 'Träumerei' Yes, but only because Perdita asked it," she ended proudly.

"But you played 'Bonnie Doon' the day I came back—before you knew I was here—when you thought I was far away in Bonnie Scotland," he said eagerly.

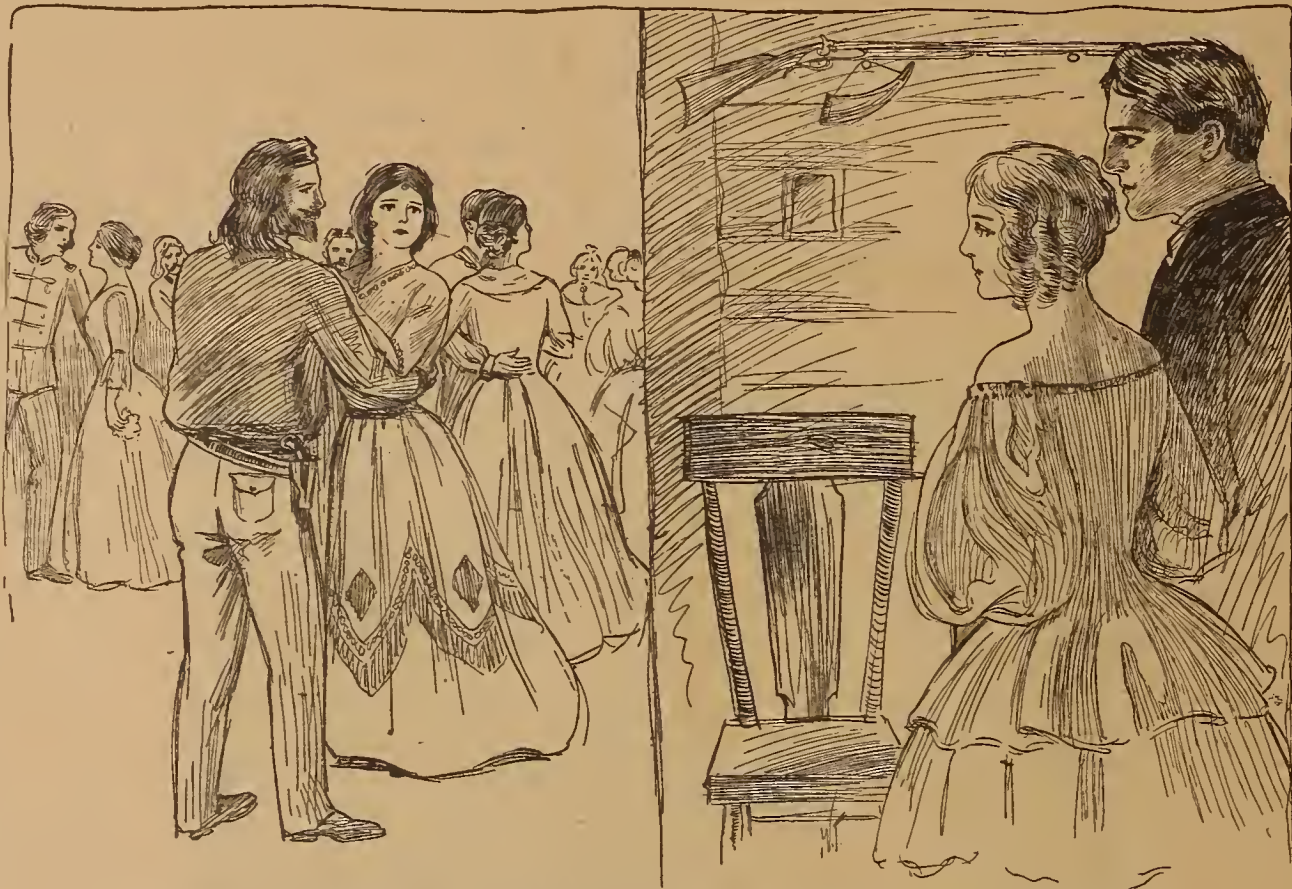
"My playing has nothing to do with the case in hand," she said. "Your duty calls you to Perdita's side. I promised her that not by word or deed would I interfere between you. Now, Mr. Graeme, will you leave me, or shall I go down stairs and leave you until you recover your senses?"

"Answer me one question first. Under the circumstances I have a right to ask it. Why did you not marry Jack Raynor, as you intended to do?"

The question surprised her so much that she forgot her studied coldness.

"Marry Jack?" she cried. "I never intended to do so. I refused him the night we—the night of the Gaylords' fête—"

"The night when we had our foolish quarrel," he interrupted, eagerly. "And all this time I have believed that you threw me over for him. For months I supposed you were married to him, and knew no better until I came from the mountains and found you here. Perdita told me that you were soon to return to the East, that you had told her that your lover was there, and that you were soon to be married."



"There was music and feasting and dancing, and much loud revelry, but all were happy in their own way"

"I told her no such thing. I said—but that also has nothing to do with the case," she replied.

"Tell me," he pleaded.

"No. The discussion has gone too far already. There is no use for us to bring up things that belong to a past existence. What lies here is all that concerns us now. Before I came—when you deemed me a married woman, you won Perdita's heart and promised to make her your wife. I could not even respect you if you should be false to that promise. Since you will not leave me, I must go. Will you please allow me to pass?"

A sudden light illuminated Donald's mind, and made him master of the situation. He did not move from his position which barred her passage.

"Is it fair to condemn a man to punishment for life without giving him a chance to justify himself?" he asked.

She did not answer, but turned from him and looked out into the darkness of the night.

"Sit down, Dorry, while I tell you my story."

"No," she said. "I will stand here. Since you hold me a prisoner, I can but listen."

"When I left you—that night at the Gaylords—my heart was broken with anger and pride. I thought you intended me to understand that you cared for me no longer—that you were going to marry Jack. I determined to go back to my home in Scotland—beside the Bonnie Doon," he interpolated with another rush of inspiration, "and made every preparation to sail. By chance I read a newspaper article on the thrilling life and stirring scenes in this far western country, and made hasty resolve to come and see it for myself. Perhaps amid its dangers and strangeness I would find forgetfulness sooner than I would beside the Bonnie Doon."

And so I came, telling no one in America of my change of plans.

"The first two months I was here I sketched the country and the people, and took many notes for another book. Perdita, with her customary freedom, took prompt possession of me. I found her amusing, and studied her for one of the characters in my proposed novel. The love affairs between her and Belzy were so varied that they, too, formed a valuable addition to my work. You have but to study my sketches and my notebooks to find ample proof of this. Never did the thought of love for her enter my mind. Never by word or deed did I make love to her in the slightest degree. Belzy can tell you that, for his jealousy at first was great, and he shadowed us persistently. When I found that I had captivated her foolish fancy, I went away on that long hunting trip, and when I returned—I found you here. All the rest you know. Who told you that I had fallen in love with Perdita?"

"She did."

"And who said that I had promised to marry her?"

"Perdita."

"And I say that it is all a lie, told for the sole purpose of keeping you from me, that she might have the chance of winning what she knew she did not possess. Will you place the word of a Spaniard before that of a Scot?"

Dorothy was silent, and Donald pressed his advantage.

"You have forgiven all my foolish quarreling, Dorry?"

"Yes," she answered, without looking at him.

"Perdita told me that you were soon to marry a 'fellow back East,' but you say that you told her something else. Are you willing now to tell me what you did say?"

There was a moment's hesitation; then Dorothy said softly:

"I told her that the man I loved—the only man I ever could love—was thousands of miles away, across the Atlantic Ocean."

Her voice had fallen almost to a whisper, but Donald heard. He took her again into his arms, and this time she did not resist him.

"Sweetheart," he said.

"Nothing shall ever come between us again. 'The only man you can ever love' is here to care for you at the very time when you need him most. I have read of 'good out of evil,' but I have lived to experience reconciliation out of an Indian raid."

Dorothy's bright face attracted the attention of everyone the next morning, and it did not take long for them to associate it with Donald's changed demeanor. Perdita watched them with curious eyes.

"He was your lover, after all," she said to Dorothy.

"Why did you tell me that he was to marry you?" Dorothy asked.

Perdita shrugged her shoulders and laughed. "That was the way I meant it should be. You had lovers enough," she said, without a trace of embarrassment over her discovered deception. Dorothy could afford to be forgiving.

"I will take Don, and you may have all the rest," she said happily.

"I want them not," said Perdita, with unusual shyness. "I have Belzy, and I care for no others."

"You are going to be good to him, after all, are you, Perdita?" asked Donald, who had come near in time to hear her confession.

"Yes," she replied, the blushes rising to her face. "He has gone away to the north to watch for the Cheyennes and the Arapahoes. He told me good-by, and said maybe he never come again. That made my heart weep, and I told him if he came back again, when the Indians were gone I would marry him, as he ask so many times."

"I am glad," said Donald. "You must be very good to him, to make up for the heartaches you have caused him. He will always be kind and good to you. I am sure you will be happy together."

"Come, Dorry, let us go up to the tower. I want to talk with you before the Indians come and make quiet conversation impossible."

Perdita looked after them with a little sigh.

"I wish that I was Dorothy, and Belzy was John." Then she went away to gaze toward the northern hills to see if by any chance Belzy might be hastening to the fort. Any moment might bring him with exciting tidings.

CHAPTER VIII.

When going upon a raid, it was the custom of the Indians to secrete their families in some mountain



fastness, some hidden valley among the hills, and then, by twos or threes, to seek the point of rendezvous near to the place to be attacked. It was one of these encampments which the Cheyenne runner had discovered amid the sheltering cañons of The Cedars.

As Belzy Pardee made his way to the north he found many unmistakable evidences of Indian proximity. Here and there occasional columns of smoke rising from some prominent place—now in thick volume, now diminishing to a delicate veil—gave his practiced eye the message intended only for his enemies. Once or twice he crossed the trail of some band, and found beside it, in peculiar arrangements of sticks or stones, the information intended for other bands which were to follow. With grim delight he changed all such arrangements to convey very different messages, and so to bring consternation instead of direction to his enemies. With the wisdom and the acuteness of the experienced scout he found means to secure much information in regard to the numbers and the movements of the hostiles. Then, with all possible haste he made his way back to the fort.

Trapper Bill had reached there but a short time before him, and the story he had to tell was much the same as Belzy's.

"The redskins are in the hills, sure enough, and there's lots of 'em. They are calculating on easy victory, for they think the soldiers are all gone. They have made a very successful raid up toward Denver, and that gives them confidence here. But they will be mightily surprised when they do come. Any hour may bring them now."

Everyone in the fort was on the lookout for the first appearance of danger. It was but a little after sunrise when Donald and Dorothy went up into the tower.

"I wish papa were safely here," the girl said, as she looked away across the plains to where the Spanish Peaks rose blue against the southwestern horizon.

"Are you afraid, Dorry?" questioned her lover. "Captain Baldwin thinks that really there is but little danger. Bows and arrows are of little avail against powder and ball. As for a siege, we are well supplied with food, drink and ammunition; and, at most, only two days can elapse before help comes."

"I was thinking only of papa when I spoke," Dorothy answered, a little proudly. "A soldier's daughter should have no fear for herself. But the southern country is filled with Comanches, Kiowas and the desperately brutal and crafty Apaches, who will be watching to ambush the troops if possible. Poor mamma is almost distracted with fear."

"We can but hope for the best, and leave the disposal with God. We will believe them safe until we are assured otherwise."

"What a lovely morning this is. Whatever other unpleasant experiences Colorado brings us, we can at least enjoy her glorious sunshine and her invigorating air. There is beauty, too, in her rolling prairies, in her rounded, wind-swept hills, her rugged mountains, and even in her torrent-torn gulches. When we are safely back in the East, or wandering by the peaceful banks of Bonnie Doon, we will delight to recall our experiences in this wild but picturesque country, won't we, Dorry, dear?"

"And to remember how we had to come nearly two thousand miles to discover what a few minutes of sensible conversation might have revealed to us. I am glad I came. Aren't you, Don? Even though we have to go through the horrors of an Indian raid. One thing is sure. There is not an Indian in sight. The prairies are as bare and as peaceful as though no savages existed. I feel as if I would like to get my pony and go for a long ride, away down the trail toward the Peaks, to meet papa on his homeward journey."

She leaned from the window as she spoke, and looked far away toward the country from which the troops were expected to come.

That instant there came a whizzing sound, and an arrow quivered in the casement, not two inches from her head. With a cry of terror, Donald caught her and drew her back into the shelter of the tower.

"That was a terribly close call," he said, trembling with fright over the narrowness of her escape.

"But where did it come from?" she asked. For the prairie still appeared tenantless.

Trapper Bill took the arrow from Donald's hand and examined it.

"Tonto," he said briefly.

"How do you know?" asked the girl.

"Four feathers," he replied. "Comanches use only two. Every tribe has its own mark. Now I know where to look for the varmint that shot it."

From a sheltered nook, he swept the prairie slowly with a powerful field glass. Suddenly he laid the glass down, seized his rifle, and taking deliberate aim, fired.

There was a yell of pain, and what had appeared to be an innocent hummock of sand proved to be a hidden Apache who, covered with dust and gravel, and hidden behind a low clump of sage brush, had been taking close observations of the fort. Dorothy had been too tempting a mark for his brutality to resist, and he had sent the arrow which had come so near to being her destruction. His life was the penalty for his dastardly deed.

"Come away, dearest," pleaded Donald. "This is no place for you. See! The horsemen are pouring from the timber! The raid has begun."

"Comanches! Comanches! Here they come!" was the cry that ran around the fort. The men sprang to their guns, and Donald hurried Dorothy down to the safer shelter of the inner apartments.

From all sides rang the blood-curdling war-whoops as the Comanches, riding like the wind, swept down upon the fort.

From behind sage brush and rock, and even from the grass and dust, sprang the lurking Apaches, to add their yells and their arrows to the ferocity of the onset.

They were answered by a fusillade of musketry from the portholes and embrasures, and a roar of cannon from the towers. Numbers of the savages fell before the sure aim of the frontiersmen; but their loss was not appreciable, for the valley swarmed with hundreds of warriors, and more could be seen pouring from the hills. All day long the furious attack continued. Even the plaza was not a safe place, for arrows, and stones from the slings of the besiegers fell thickly within it.

Toward night there came a lull. Presently, from various sides of the prairie, little tongues of flame leaped up.

"They have fired the prairie, so as to attack under cover of the smoke," Belzy said to Perdita, who refused to leave his side, but covered behind the battlement near to where he was posted. A moment later the flames rolled up with increasing volume from every side. The air grew hot and smothery as the heavy blanket of smoke settled down upon the fort, and sparks and ashes showered upon its gravel roofs. As Belzy had predicted, the smoke was used as a cover for another attack which brought the savages to the very gates and gave them opportunity to seek to scale the walls. For a time there was fierce fighting. Then the defeated Indians drew back.

Far away to the south, Colonel Vernon and his command, riding to the rescue of the fort, beheld the red light of the flames reflected upon the sky, and groaned with horror.

"The fort is burning," they cried. "We are too late."

When they reached the valley, six hours later, the defeated savages—whose sentries had signaled their approach—had disappeared amid the sheltering hills, carrying their dead with them. The fort still stood, blackened with smoke and cinders in the midst of a blackened prairie, but still safe. A few of its defenders had been wounded by arrows, but none had been killed, while their assailants had lost heavily.

It was the last attack that was made upon the old fort. The white men had become too numerous and too powerful for the Indians. For two or three years longer there were raids along the trail, and a desultory warfare which rendered the open prairies unsafe for settlers; but the white man's soldiers and the white man's government prevailed. What remained of the savage tribes were, after a time, transferred to the Indian Territory, where their descendants dwell at this present day.

In due time, there was a double wedding at the fort, celebrated with all the spirit of frontier festivities. Belzy and Perdita had begged that Donald and Dorothy should be married at the same time with themselves, and the whole garrison had united in the plea. After some demur, Dorothy gave her consent.

From the bottom of one of her trunks, she brought out the dress which she had worn at the fête in New York, the night when she and Donald had "parted forever." It was the only one of her fashionable costumes which she had brought to the West. Donald had thought it beautiful, and therefore she had carried it with her. It was a marvel of elegance to the eyes of the fort dwellers, and added no little interest to the occasion.

There was music and feasting and dancing, and much loud revelry, but all were happy in their own way.

Standing back beside her husband in a corner of the plaza, Dorothy watched the revelry for a time; then turning her amused eyes to Donald, she said:

"Suppose some one had told us that night at Gaylords' that this was the kind of wedding we would have, would we not have been both amused and horrified? I always declared that I would be married in a church, with all the style which that means; and here I am, celebrating my wedding in a Western fort, and wearing

an old party dress for my wedding costume."

"And getting a Western trapper for a husband," added Donald.

"I have married the man who always figured in my fashionable dreams, anyway," she retorted.

"But you have not the same attendants," said Donald, looking at Belzy and Perdita, who were among the merriest of the dancers.

"Certainly not," she replied, "but their friendship for us is just as true as though they belonged to the élite of Eastern society. It is not the dress, nor the education, nor the polish that makes the worth of one's friends; and nowhere will we find those who will be more sincere than these people among whom our lot, for the time being, has been cast."

A few months later, Colonel Vernon was released from his post at the fort, and with his family returned to the East. With the advent of civilization, the sweep of gold-hunters, the coming of the railroad, the crowding of settlers, the Indian disappeared from the Colorado prairies, to be known no more. The Santa Fé Railway took the place of the Santa Fé Trail, and the old stage stations, useless and deserted, fell into decay.

To-day but a corner of an adobe wall and a mound of earth remain to mark the site of old Fort Bent. The ruins stand upon a little rise of ground in one of the pastures of a noted cattle ranch. To the north, at a little distance, lies the well-traveled county road over which pass carriages, automobiles and every other kind of vehicles of modern times, while telephone wires stretch their connecting links between the numerous dwellings of the valley.

Beyond the river gleam the shining rails of the Santa Fé Railway, and the luxurious "California Limited" has taken the place of the ox-drawn wagon-train.

The foundations of the old fort are plainly marked, the shape of the hexagonal corner towers being clearly defined. Near by is a solitary grave heavily covered with stones laid in mortar, the last resting place of one who laid down his life amid the stirring scenes of those early days.

EDWARD DORRIS  
Died July 21st, 1865.  
Aged 31 years,  
2 M's, 28 D's.

Edward thou hast gone to rest  
In this far country of the West.  
Brothers and friends mourn and weep.  
Thou in this tomb dost sweetly sleep.

Numerous ant-hills are to be found in and around the ruins, and amid the gravel which the ants bring up from their subterranean abodes may be found many bright-colored glass beads, relics of the days when Indians swarmed about the fort. The river bottom, once the place of encampment for the troops, lies brown and deserted; and the aged cottonwoods along the river's brink speak not of the bloody scenes which once they witnessed.

A strange feeling of awe, of sympathy for those who feared and suffered and died upon this very spot comes over the visitor to these lonely ruins. The busy little city of La Junta is not far away, but from the ruins it is not visible. Only one dwelling is in sight in the whole valley.

Yonder are the hills which once were the hiding places for brutal savages. Here are clumps of sage brush and Russian thistle, such as were wont to conceal the lurking foe. Across the plain o'er which the visitor has ridden in leisurely safety many a man has fled in terror, and died, perhaps, with the gates of safety ready to swing open before him.

Over all shines the same golden sun which looked upon those wild and bloody scenes, and over the hills drops the same soft, purple haze.

Fort Bent has passed away forever, but its history, written in blood and tears, is the history of what is now a glorious civilization, and the record of noble and daring deeds.

[THE END]

#### The Family Horse

BY JONAS JUTTON

I WAS driving happily along the shady country road, when passing near a stable, close to the highway, I heard moans and cries of distress; and turning my horse up to the lot fence found a man, woman and two children weeping bitterly over a large black horse, which lay dead, a few yards from the stable door.

"I notice you have had the misfortune to lose your horse," I commented, thinking it childish to show such grief over a dead animal.

"Yes, sir, died a few minutes ago," sobbed the man, endeavoring to repress

his grief, as he walked toward me. "You think it weak and foolish, no doubt, for us to show such sorrow," he went on; "but maybe you won't when you understand."

"I purchased that horse twelve years ago, in the spring before I married that fall. Me and Mary there, my wife, had many enjoyable rides behind him that never-to-be-forgotten summer, and he shared our pleasures, our sorrows and our secrets. Then when Mary became my wife and I brought her home, it was behind old Ben, which we loved dearly. Every day during crop-time, for the last dozen years, he has performed his work nobly; and many's the time he has carried us nutting, on a fishing spree, to a picnic or some other frolic, seemingly happy in our enjoyment. And when Katie, our oldest child died, and we carried her to the cemetery, he pulled us there; and he appeared to know what the trip was for, and, with bowed head went slowly and sadly along, as he had never gone before nor since. Yes, sir, we all loved kind, gentle old Ben. He has been with us every day since that memorable October evening when I brought Mary here, from her father's, across the creek; and he seemed more like one of the family than a willing, docile slave."

I could not reply, but as I drove off, the farmer saw by the tears in my eyes that I understood.

#### People Who Never Laugh

THERE is supposed to be only one tribe of people in the world who never laugh, and they are the Veddas, the aboriginal inhabitants of Ceylon. And, bearing out the truth of the proverb, "Laugh and grow fat," the Veddas are the slenderest, most emaciated people in the world.

For nearly two thousand years, according to the best chronicles, these people, now almost extinct, have preserved the same characteristics, and no one, so far as history reveals, has ever seen a smile on the face of one of them or heard a laugh while in their section of Ceylon.

The Veddas are divided into three distinct groups. The rock Veddas dwell almost entirely among the Bintenne jungles, in caves or clefts in the rock. They are skilful archers, bringing down bats, owls, crows and kites, which constitute their principal food. They will not, for religious reasons, touch the bear, elephant or buffalo. The village Veddas live in small colonies along the eastern coast and cultivate grain to a small extent.

The Veddas of the rock are, if possible, the most solemn group of the three, and all efforts to teach them even to smile have proved unavailing.

Why these people do not smile is a mystery. They alone of all the people of the earth know nothing of the sensation of laughter. A scientist who recently journeyed to Ceylon for the purpose of investigating this question persuaded some of the rock Veddas to permit him to tickle them in the ribs and in the middle of their feet with straws, and never caught even the flicker of a smile on their faces, nor did he even succeed in making one of them squirm during the operation.

Another strange thing about the Veddas, and one which may possibly be connected with their lack of humor, is the fact that every one of them is a George Washington, unable to tell a lie, or conceive of anyone else telling a lie. They cannot even believe that anyone would take the property of anyone else, and association with civilization has failed to convince them that it is possible. When anything is missing since the advent of other peoples into Ceylon, the fact that it is missing is charged to the article itself.

With all this—or, rather, without all this—the Veddas are a peaceable, gentle, quiet people. They take wives without any marriage ceremony, and are faithful and constant to them, supporting them till death.—From the Popular Magazine.

#### The Summer-Time

The rose parterre in garden fair  
Floweret in mead and dell,  
Bright thermal sun and fragrant air,  
Of blooming summer tell.

The eglantine, the climbing vine,  
And the song-bird's thrilling lay—  
Florescent bloom and song divine,  
Praise and crown the summer day.

The lily white, in golden light,  
Salutes the violet blue;  
And o'er the fields and meadows bright  
There're glittering pearls of dew.

But oriole tune, month of June—  
Song and beauty die away;  
Life's rosy morn and hour of noon  
Are parts of the fleeting day.

—George Dallas Mosgrove.



## Them Summer Boarders

(By the man whose wife keeps 'em.)

I have to hitch the gray mare up, an' fetch their trunks an' stuff  
Home from the cars, me driv' there a-harkin' to their guff  
About the "lovely hills so blue" an' "oh, the sparkling air!"  
An' all that city tommyrot that makes me want to swear.

They occupy the porches an' the chairs I like the best,  
An' use my shade to loaf in, an' the hammock where I rest;  
They ask me how the fishin' is an' where the pick'el bite  
Until I get so gol darn mad I just could up an' fight!

I've got to mop the kitchen floor an' fill the coal-oil lamps  
An' fix the swing an' shoo the flies an' go to town for stamps.  
I have to wash their dishes, too, a-feelin' like a chump.  
An' eat my vittles off a bench beside the back-door pump.

A pretty state of things, by jinks; when men ain't got no rights  
Around their homes, an' has to sleep out in the hayloft nights!  
A man's house was his castle once, but 'tish't so to-day.  
Consarn them boarders, anyway! That's all I've got to say.

—Newark Evening News.

## Being Neighborly

BY HILDA RICHMOND

IN THE country more than in town people are dependent upon their neighbors in emergencies. With the bakery around the corner and the doctor near at hand, the average city family can get along fairly well but there are occasions in the lives of all rural dwellers when kind friends must lend a hand. "No man liveth to himself" is especially true of farmers, and happy is the neighborhood where all the people live in peace and harmony. In some communities death cannot break the enmity between families, and the bitterness is cherished even toward neighbors dead and long since turned to dust.

"Being neighborly," in the minds of a few selfish people means that all the favors are one-sided. There are men and women all over the land who impose upon their neighbors simply because the patience and long suffering of the kind-hearted individuals forbids treating anyone discourteously. There are ladies who are vexed to death by chronic borrowers, yet they never betray it by word or sign. "It wouldn't be neighborly to refuse," said a dear old lady when her cherished preserving kettle came home ruined, and her city niece declared she was foolish to ever let it go out of the house. "It isn't neighborly for that woman to burn it beyond recognition," retorted the young woman, but the neighborly neighbor refused to be convinced. The fact that the shiftless woman was in her vicinity covered her faults with the mantle of charity, and as long as she lives near her, the cooking utensils will continue to go visiting.

Ideal neighbors are more common than pessimistic people would have us think. In one farming community a man has been sick all winter with rheumatism, and his family could not do the work that he was too poor to hire done. The neighbors have taken the work upon themselves as a matter of course, and the suffering man has been cared for all winter. His crops and animals have been cared for and he has kept out of debt through the efforts of kind friends. That type of neighborliness is unknown in cities but very common in the country. In sickness, in trouble and busy times a neighborly man will always find help among his friends, and quite often the selfish individual is assisted, even though he has never shown himself a friend in need.

The telephone and rural free delivery have made the farmer more independent than formerly, but he still feels the need of friends. Neither of these important helps have done away with the necessity for friends in sickness, for though there be money to employ a trained nurse, it is often much harder to find a hired man in time of need. When the man of the house gets down in bed with a lingering illness things would look dark for many a home were it not for neighbors. It is the great cry of farmers and their families who move to town that people are so stiff and formal.

One of the worst foes of good feeling in the country is the tendency of certain ignorant people to gossip. One mischief-maker in the community can do more harm than a contagious disease, for wounds of the heart seldom heal. If you want to be considered an ideal neighbor, refrain from making unkind remarks even though they be true. To love your neigh-

bor as yourself does not mean holding his short-comings up to the light, nor does this public calling attention to faults ever help to abolish them. Many a woman wonders why she is not allowed to do little acts of kindness so welcome when performed by her neighbors, but in many cases it is impossible to trust those who would be glad to help in times of trouble. It is a fine thing to give your strength and support to a sick neighbor, but it is a



SWEET PEAS

much finer thing to keep your lips closed about anything you may discover while helping the needy that would injure them if repeated.

If you have ideal neighbors, love and cherish them, for the time may come when you are friendless and alone in a strange city. A great many writers would have us think vulgar curiosity prompts every bit of neighborly interest in the country, but we who have had experience know better. It is not curiosity, but the desire to be neighborly that prompts our friends to rejoice with us when we have joy in our homes, and freely give their tears to mingle with ours in times of sadness.

half cupful of sugar, three teaspoonfuls of ground mustard, three tablespoonfuls of mustard seed, two tablespoonfuls black pepper, three teaspoonfuls of celery seed, one teaspoonful of cloves, one teaspoonful of cinnamon, one red pepper, one quart of vinegar, one cupful of onions chopped fine. Mix and bottle, or put in glass jars.

## Celery Pickle

Wash and cut into half-inch pieces any quantity of celery you may wish to use. Boil until tender in a little weak salt water; then cover with pure cider vinegar, to which add to suit the taste, sugar, mus-

## Chow-Chow

One quart of chopped tomatoes, three small heads of cabbage, three bunches of celery, one quart of yellow stringed beans cut in small pieces, one quart of onions chopped fine, one quart of lima beans, one quart of cucumbers chopped, one quart of mangoes, one quart of green corn, one fourth pound of yellow mustard, whole, three cupfuls of sugar, cook beans tender before putting with the rest. Put rest together and salt. Drain and cover with cider vinegar. Boil till tender, seal in jars air-tight.

## Salad Dressing

The yolks of two eggs, one teaspoonful of corn-starch, one half cupful of sugar, one teaspoonful of mustard, all beaten well together, three fourths of a cupful of vinegar, butter the size of an egg. Boil this until thick and pour over well-beaten whites of eggs; stir up and set away to cool.

## Cold Tomato Catchup

One peck of ripe tomatoes chopped fine, and drain in a bag for five or six hours or over night. Then add one half cupful of salt, one

half cupful of sugar, three teaspoonfuls of ground mustard, three tablespoonfuls of mustard seed, two tablespoonfuls black pepper, three teaspoonfuls of celery seed, one teaspoonful of cloves, one teaspoonful of cinnamon, one red pepper, one quart of vinegar, one cupful of onions chopped fine. Mix and bottle, or put in glass jars.

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From Original Photographure, Size 7x9 inches. Copyright, 1905, by The Ben Austrian Art Pub. Company, Reading, Pa.

GIVE US A BITE

tard and black pepper. Let it come to a boil and seal hot. When used in this way you can utilize all the tough portions of celery.

## In the Kitchen

**RICH BAKED APPLES**—Pare the apples, sprinkle heavily with sugar, place a half teaspoonful of butter on top of each one, arrange them in a dripping pan, pouring in almost half an inch of water; taste while baking. Do not bake sweet apples, nor Ben Davis. Use Greenings, Pippins or any good, tart, cooking apple.

**CODDLED APPLES**—Apples "coddled" are really preserved apples, though they may be served warm if preferred, and might "pass" for rich baked apples. Make a syrup of two parts water and one part sugar; pare and core the apples, drop them into the syrup, and cook until they can be pierced with a broom straw; now remove to a baking dish, sprinkle with sugar, dust with nutmeg, and brown a little in the oven. Cook down the syrup, and pour around the apples. Serve with or without rich cream.

**CREOLE DRIED BEEF**—Shave the beef as thin as paper, cover with cold water, and bring it to a scald; pour off the water, dry by stirring about, add enough butter to coat the pieces (when melted), and keep moving about the pan until slightly browned; now dredge with flour, stir about again, and add enough thin cream to give a good sauce; season with pepper, more salt if necessary, and add some chopped parsley.

**PEACH SHORTCAKE**—Make a crust of rich baking-powder dough, bake, and split it. Have ready some peach syrup made of the parings of the peaches, and baste this freely over the soft sides of the split crust; then cover them thickly with ripe peach quarters that have been sprinkled with sugar for a couple of hours, and place one on top of the other. The success of peach shortcake depends entirely upon having plenty of juice and using only ripe, well-flavored peaches. To make the syrup, cover the parings with water and boil for fifteen or twenty minutes; then strain and measure, add half as much sugar as the measure of juice, and boil ten minutes.

**BAKED BANANAS**—Strip the skins from the bananas, and line the bottom of a dripping pan with them, the soft side up. Brush the stripped fruit over with butter and roll in sugar, arrange on the skins, and bake in a rather quick oven until brown. Eat with lemon sauce or plain.

**PEACH DUMPLINGS**—No. 1. Make a baking-powder dough not quite stiff enough to roll out and with very little shortening. Drop a pared peach half into a tumbler, add a teaspoonful of dough, then another peach half and spoonful of dough, so continuing until the tumbler is full. Stand the required number of these tumblers in a steamer, and steam an hour. Eat with hard sauce.

No. 2. Make a rich baking-powder dough and roll it out thin, cover thickly with sliced peaches, sprinkle with sugar, dot with butter and roll up and cut into sections two inches through; stand these sections (cut side up) in a granite dripping pan, baste freely with syrup made from the parings, and bake in a quick oven.

**VELVET CAKE**—Beat together one half of a cupful of butter and two cupfuls of sugar until very light; sift three times together (after first mixing with hands) two cupfuls of flour, one half cupful of corn-starch and one teaspoonful of baking powder. To the batter mixture add one cupful of milk, then the flour mixture, one teaspoonful of almond or orange extract, and lastly the whites of four eggs beaten to a stiff froth.

**CRULLERS**—Beat together one tumblerful of sugar, one half tumblerful of butter and three egg yolks until very light; add one teaspoonful of cinnamon, one level teaspoonful of salt, one half saltspoonful of grated nutmeg, the juice of a small lemon, the beaten whites of the eggs and three tumblerfuls of flour (measured before sifting). Roll out to a half-inch sheet, cut with a jagging-iron into strips, and twist, or into rounds with a doughnut cutter. Fry in deep fat, remove to a sieve, and dust with powdered sugar.

## Lemon Cheese Cake

Make some short crust paste and roll it out rather thinly, and line about a dozen patty pans with rounds of paste. Then prepare following mixture: One half pound sugar, two ounces butter, two eggs, rind and juice of one lemon. Put the sugar, butter and eggs into a nice, bright saucepan, then add the rind of the lemon grated and the juice. Stir over the fire constantly till it just comes to boiling point and looks like honey. Allow it to cool, then put a little in each prepared tin, and bake in a quick oven for fifteen to twenty minutes. The remainder of the mixture will keep for a long time if put into a jar and covered over, and is a pleasant change from the ordinary preserves.



## Attractive Collar-and-Cuff Set

THE old-time eyelet work has proven just as fascinating to the present generation of needleworkers as to that of half a century ago. If anything its desirability has been enhanced by its adaptation to a larger number of articles. Almost everything in household or personal linen is embellished with it now, and in numerous instances the work is given a richer appearance by combining it with French laid or solid embroidery.

In the collar-and-cuff set shown a combination of these two popular embroideries is seen—the wreaths of tiny eyelets, and the leaf forms solid, with stems of eyelet stitch. This laid work is done across the leaf, after padding with stitches taken in the opposite direction.



## The Housewife

with white. A couple of rows of white inserted a short distance above the edge adds materially to the appearance of the costume. For the cap, a round piece allowed to cup on the last two rows, and edged with a scallop, is all that is necessary.

The doll in the illustration is indestructible, with movable arms only. This manner of clothing it is especially appropriate, as it will float when placed in a bowl or tub of water, and in consequence is a great amusement to little people.

HEISTER ELLIOTT.

## Ways of Preparing Chicken

**STEAMED CHICKEN**—Rub the chicken on the inside with pepper and half a teaspoonful of salt; place in a steamer in a kettle that will keep it as near the water as possible, cover and steam an hour and a half; when done, keep hot while dressing is prepared, then cut up, arrange on the platter, and serve with dressing over them.

The dressing is made as follows: Boil one pint of gravy from the kettle, without the fat and cayenne pepper, and half a teaspoonful of salt; stir a tablespoonful of flour into a fourth of a pint of cream until smooth, and add to the gravy. Cornstarch may be used instead of flour; some cooks add nutmeg or celery-salt.

**MOCK PRAIRIE-CHICKEN**—Large fowls are slowly steamed until tender. In a deep skillet place a heaping tablespoonful of butter, several slices of bacon, half a dozen peppercorns and half a dozen whole cloves. Roll the pieces of chicken in salted flour and fry until brown. At the last moment add a cupful of cream, allow it to heat and serve at once.

**CHICKEN FRICASSEE**—Cut a nice yearling chicken into small pieces, put in a pot and cover with cold water, when it boils skim it, carefully taking off all the scum as it rises; mix two thirds of a cupful of flour with half a cupful of butter, let it stand where it will be warm; when the chicken is cooked put in the butter and flour mixed thoroughly with a teaspoonful of salt and half as much pepper, have ready a pan of nice warm biscuits, break them in halves, lay them on a deep platter, pour the chicken and gravy on the hot biscuits.

**CHICKEN FRITTERS**—Cut cold roasted or boiled chicken or fowl in small pieces and place in an earthen dish. Season well with salt, pepper, and the juice of a fresh lemon. Let the meat stand one hour; then make a fritter batter, and stir the pieces into it. Drop, by the spoonful, into boiling fat, and fry till a light brown. Drain and serve immediately. Any kind of cold meat can be used in this way.

**DEVILED EGGS**—Put into a chafing-dish and beat together two tablespoonfuls of



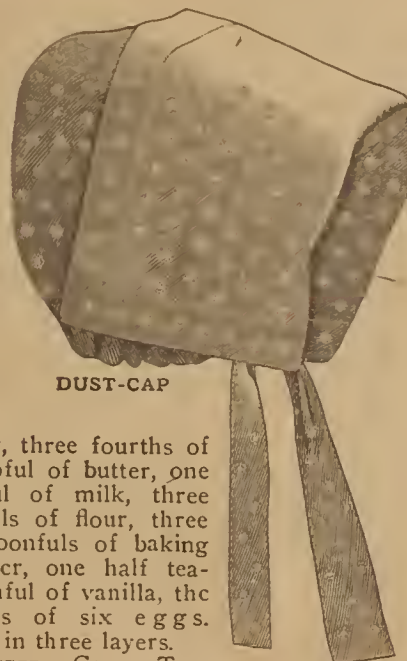
CROCHET COSTUME FOR DOLL

butter, one teaspoonful of dry mustard, two tablespoonfuls of tomato catchup, two tablespoonfuls of Worcestershire sauce, salt and pepper. When hot add six sliced hard-cooked eggs. Serve on split biscuit. —What-to-Eat.

## For the Cake Baker

**CARAMEL CAKE**—For three large layers—allow one cupful of butter, two cupfuls of sugar, one cupful of milk, three cupfuls of flour, the whites of five eggs, two tablespoonfuls of baking powder.

**CHOCOLATE CAKE**—Three cupfuls of



DUST-CAP

sugar, three fourths of a cupful of butter, one cupful of milk, three cupfuls of flour, three teaspoonfuls of baking powder, one half teaspoonful of vanilla, the whites of six eggs. Bake in three layers.

**COFFEE CAKE**—Two cupfuls of brown sugar, one cupful of butter, one cupful of molasses, one cupful of strong coffee as used on the table, four eggs, one teaspoonful of saleratus, two teaspoonfuls of cinnamon, one teaspoonful of grated mustard, one pound each of raisins and currants and four cupfuls of flour.

**CORN-STARCH CAKE**—Cream together until perfectly light, two cupfuls of sugar, one cupful of butter, then add one cupful of sweet milk, two cupfuls of flour, one cupful of corn-starch, two teaspoonfuls of baking powder and last of all the beaten whites of eight eggs. Flavor to suit the taste, and ice with a cream or boiled icing.

**ICE-CREAM CAKE**—Three cupfuls of granulated sugar, not quite full, three fourths of a cupful of butter, one cupful of milk, three cupfuls of flour, the whites of six eggs, two heaping teaspoonfuls of baking powder sifted with the flour, and one half teaspoonful of vanilla.

**LEMON CAKE**—Two cupfuls of sugar, half a cupful of butter, three fourths of a cupful of sweet milk, the whites of six eggs, three cupfuls of flour, three teaspoonfuls of baking powder.

**SAUCE FOR LEMON CAKE**—Grated rind and juice of two lemons, yolks of three eggs, one half cupful of butter, one cupful of sugar; mix all together and set on stove to cook until thick as sponge, stirring all the time. Use like jelly between layers.

**LISBON CAKE**—One cupful of butter, two cupfuls of sugar, three cupfuls of flour, one cupful of new milk, the whites of eight eggs, three teaspoonfuls of baking powder.

## Crab-Apple Pickle

There is an old-fashioned sweet crab-apple pickle which is in high favor with city visitors to the homes of country friends, but which is seldom seen on the city table. Yet the pretty fruit makes a most attractive as well as toothsome relish with meats. A regular sweet pickle is made for the fruit, the same in every way as for watermelon rind, ripe cucumbers, peaches and pears. For every seven pounds of crab-apples, allow eight cupfuls of sugar, two cupfuls of vinegar, two teaspoonfuls each of cinnamon and allspice, a teaspoonful of ground cloves, half a teaspoonful of ground mace and half an ounce of ginger root. Bring the sugar and vinegar to a boil and throw in the spices tied up in a bag. Add the crab-apples, which have been looked over for perfect fruit and washed and dried. Let them come to a boil. Then remove and turn into a large stone jar. The next morning drain the liquor from the crab-apples, bring to a boil and turn over the apples. Repeat the process for ten consecutive mornings. The last morning that the liquor is heated boil it down until only enough remains to cover the fruit. Put in the fruit, let it come to a boil and then can it.

The crab-apples should not be peeled. The stems should be left on.

## Cupid in the Kitchen

BY ROMEO

Cupid is making his home in the kitchen; The cook has resigned in a rage—let her go!

Fair Millicent rallies to finish the baking— And Cupid assists in the dimples of dough.

A glance at the yeast, and a test of the oven,

A glow and a stir in the heart of the foam—

No wonder when Millicent comes to the kitchen

That Cupid the Baker has made it his home!

Fair Millicent closes the door of the oven,

And mixes the batter with consummate grace,

The case of a chef in her method and manner,

The pride of her knowledge aglow in her face;

Uncovered her throat, and her arms to the elbows,

As white as the dust of the flour—and I know

Why Cupid is sitting beside on the table,

And sticking his thumbs in the dimples of dough!

Sweet Millicent butters the pans with her fingers—

On one of them flashes the fire of a gem;

Dan Cupid caresses her hands, and the diamond;

I dare not draw near in the worship of them—

When Millicent rallies to finish the baking

I have to behave, or else get up and go.

While Cupid sits up on the table beside her

And meddles his thumbs in the dimples of dough!

Ah, Millicent, Love is "at home" in the kitchen;

And when every loaf is a bubble of brown,

I'm sure that we'll find a few golden-tipped arrows

That Cupid is dropping in, now, while you frown;

And when you invite me to dinner, beside you,

I'll feast on your love with your bread, white as snow—

For now, though you seem much too busy to heed me,

You are kneading your heart in the dimples of dough!

## Preserving Butter

Last fall I had to put my cow out for the winter because I wanted to teach and would only be at home once a week. For this short period, however, I would need butter, so before the cow went away, which was three weeks before school began, I saved a few pounds.

I worked it thoroughly two or three times, scalded a stone jar, cooled it with fresh spring water and sprinkled a little salt in the bottom. I then packed this well-worked butter as closely as I could in the jar. I placed a cloth immediately on the butter, as the jar was not quite full, then covered it with a thick cotton cloth and tied it well.

The jar was then placed in a cool, dry, dark closet. From time to time this butter was opened through the winter, but securely retied each time. To-day there is a small portion of it left and it is good.



COLLAR-AND-CUFF SET

I used it in biscuit yesterday and could not have told its age either from taste or smell. Others partook of the biscuit and buttered the biscuit with this same butter and pronounced it good.

J. P. A. HILL.

## Omelets

**FRENCH OMELET**—One pint of milk, one cupful of bread-crumbs, three eggs, one teaspoonful of flour, chopped parsley, season with salt and pepper. Heat butter in a skillet, when omelet is brown turn it over and serve.

**PLAIN OMELET**—Four eggs, one half teaspoonful of salt, two large tablespoonfuls of flour, one small teaspoonful of baking powder, two cupfuls of milk, beat the eggs rapidly for two minutes. Dissolve the flour and baking powder in a little milk, and mix all together, then bake in oven or on the stove.



BELT POCKET

This prevents the outer layer of stitches from sinking in between those of the padding.

The eyelets are outlined with a row of small running stitches, then punched with a stiletto, and overcasts closely. The border is buttonholed in scallops. Two or three rows of outlining, which serves to give a heavier, raised edge, should be placed around the scallops before buttonholing.

The design in this case is a simple, yet effective one, and may readily be copied by anyone from the illustration. The material used should be a firmly woven linen, as the eyelet work is better suited to something of this character. Old bleach linen, damask or satin jean are all very satisfactory for such work. Any soft embroidery cotton will answer for the needlework.

MAE Y. MAHAFFY.

## Old Lady's Belt Pocket

One half yard of double-faced black satin ribbon four inches wide, one half yard of the same quality of ribbon three inches wide, and one third yard of narrower for the finishing bow, is required for this useful article.

Turn back the end of each of the wider ribbons for a point, fold back for the depth of six inches for a pocket, and overcast the edges. Place the narrower pocket on top of the wider and a couple of inches shorter; sew together, concealing the stitches with a bow made of the two-and-one-half-width piece of ribbon. Secure a black safety-pin to the back of this bow by which to attach it to the belt of the wearer when in use.

M. E. SMITH.

## Dust-Cap

This most useful dust-cap is made of dotted swiss, eighteen inches long and nine inches wide. Gather and sew to this a piece, by placing gathers at top of piece, fifteen inches long and thirteen inches deep. Make a one-inch hem; run two-inch ties in back part; they also form gathers. Turn front back five inches, finishing edge with fancy stitch.

M. E. W.

## Crochet Costume for Doll

A very satisfactory way to dress a doll for small folks is in crochet garments of split zephyr. The doll shown in illustration is clothed in a dark blue bathing-suit trimmed with bands of white. In single or double crochet make drawers to the knee of the dark blue; edge the ruffle in white. Adjust at the waist with a small cord and tassel.

For the dress no particular rule can be followed, as the body of the doll must be the guide. A plain bodice with short sleeves, loose at the neck, to be adjusted by means of a cord in order that the garment may easily slip over the head. The skirt must be widened sufficiently to allow a graceful fullness. When you have the desired length, finish with a scallop edged



## Betty's Mistake

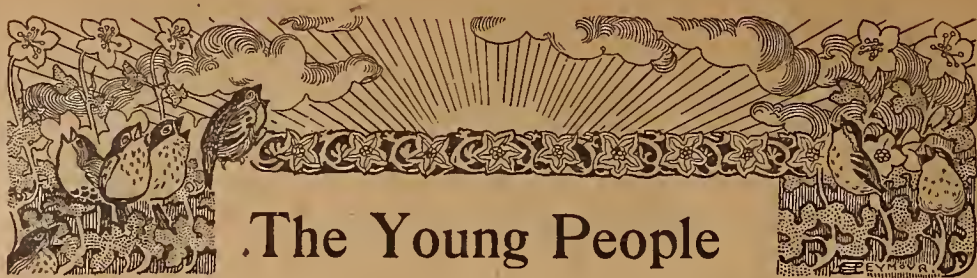
BY HILDA RICHMOND

"Betty will do it very nicely," said the ladies of the committee. "We have planned to have little girls dressed in white to do the decorating this year and the soldiers think that will be better than anything else. Many of them are getting too feeble to do more than ride in the procession on Memorial Day."

"Betty is so little," said Betty's mother, but a modest little voice from the sitting-room said, "I'm past six."

"Are you home from school, Betty?" called the ladies. "Come in here, dear. How would you like to wear a white dress and put flowers on the graves of the soldiers next Wednesday?"

Betty's eyes sparkled. "I could do



## The Young People

"I guess she made a mistake," said Betty looking at the wealth of blossoms on Colonel Smith's grave placed there by his relatives that morning. "I'll just put the roses over here," and she turned to where poor old John Simmes was lying with only the green sod and a tiny flag

ever, the prisoner answers in rhyme at least six times, the judge thunders something like:

"Discharge the sheriff for not being right." And if any of the other players can respond immediately with a rhyme, as for example, "Give me his job and I'll work day and night," that player gets the office, while the prisoner who answers the six questions is released and promoted to be assistant judge.

Thus the game continues until all the players are either in prison or promoted to be assistant judges.

## MAGIC CIRCLE

Tell your audience that it is in your power to place any person present in the middle of the room and draw a circle round him, out of which, although his legs and arms are free, it will be impossible for him to escape without taking off his coat.

"I shall use absolutely no force to detain you," you must say, "and I shall not bind you in any way, but all the same you will not be able to get out of the ring, struggle as you will, without partially undressing!"

Your audience will be considerable puzzled, and someone is sure to offer to be put in the magic ring. Place the person in the middle of the room, blindfolding him, button up his coat, and then take a piece of white chalk and draw a line right around his waist—outside the coat.

When the handkerchief has been taken off his eyes he will see that it is impossible for him to get out of the "ring" without taking off his coat, and the audience will laugh heartily at the joke.

## BASTE THE BEAR

To play the game of baste the bear one of the players is chosen bear. He sits on a stool, with a rope about four yards long tied around his waist, the other end being held by the bear's master. The other players run around them, flicking at the bear with their handkerchiefs, the master trying to catch them without letting go the end of the rope or pulling the bear over. Should he do so, he must give his place to the player he last touched.

Each player captured takes the bear's place.

## DUMB CRAMBO

To play this game the guests are divided into companies of six, who take turns in leaving the room. When the first

six go out those remaining select a word, then a word rhyming with that one is mentioned to the outside party, who then re-enter the room—one or more, or all at once—and proceed to act other rhyming words, until they find the right one.

For instance, the company who first left the room were told that they must act the word that rhymed with "dell." One of them immediately came in ringing a tea-bell.

"No," said the audience, "it is not bell."

It will be observed that the audience is obliged to guess what word the company



IN THE SADDLE

is acting, while the company must guess the word the audience wishes acted.

Sell, well, tell, and Nell were acted to no purpose, but when "cell" was represented it was pronounced the right word.

## DRAMATIC ADJECTIVES

To play dramatic adjectives one of the children leaves the room and the rest choose some adjective which, when replying to the questions put to him upon his return, they endeavor to answer by suggesting in some manner the thing decided upon. The person affording the clew becomes the questioner.

## Lincoln's Mental Powers

LINCOLN was always strong with a jury. He knew how to handle men, and he had a direct way of going to the heart of things. He had, moreover, unusual powers of mental discipline. It was after his return to Congress that he made up his mind he lacked the power of close and sustained reasoning, and set himself like a schoolboy to study works of logic and mathematics to remedy the defect. At this time he committed to memory six books of the propositions of Euclid; and, as always, he was an eager reader on many subjects, striving in this way to make up for the lack of education he had had as a boy. He was always interested in mechanical principles and their workings, and in May, 1849, patented a device for lifting vessels over shoals, which had evidently been dormant in his mind since the days of his early Mississippi River experiences. The little model of a boat, whittled out with his own hand, that he sent to the Patent Office when he filed his application is still shown to visitors; the invention itself failed to make any change in steamboat architecture.—St. Nicholas.



DOWN FOR THE NIGHT

that," she said quickly. "I've got a new white dress, too."

"Are you sure you would get to the right places, Betty?" asked her mamma. "You know you get excited when the band plays."

"Is the band going to play? Then please let me go, mamma. I'll be very, very careful."

"The graves are all marked with little flags," said one of the ladies "so there will be no trouble. We'll put down your name Miss Betty, for your mamma will surely let you go."

To be called Miss Betty, to be asked to ride in a big hack with other little girls in white dresses, to have her name in the paper, to wear a new white dress and hear the band play—all these things were so delightful to Betty, that it is no wonder her teacher said she would be glad when the great day was over.

On the morning of May thirtieth Betty was dressed in her white frock and taken in the hack to the place where the band was playing and the old soldiers gathering for the parade. Betty wished it was miles and miles to the cemetery instead of just a little distance, for all along the way people stopped to take off their hats and watch the little procession go by. There were wagon-loads of flowers and green wreaths following behind, and carriages filled with people. The little girls were too excited to chatter, and the lady in charge of the hack thought them very well-behaved indeed.

"This wreath is for Colonel Smith's grave," whispered the lady taking up a beautiful mass of roses and carnations.

above him, though he had been just as brave a soldier as the Colonel.

"That child made a mistake," said the lady to a friend near her, but when the watchers realized what was going on, they broke into low hand clapping that confused Betty greatly.

"You did just right, little one," said an old man in blue. "John Simmes was a brave man and he deserves the best we can give him."

So the beautiful wreath stayed on the humble grave and everyone said Betty made a charming little mistake that Memorial Day.

## A Cat with Civilized Habits

MOST cats are insistent that the only way to be truly comfortable is to curl up in one of those attitudes that only a cat can assume. The little kitten, however, that belonged to a little boy near Norwich, Conn., was never quite happy unless it was lying in the doll's bed that belonged to the little boy's sister, where it would put its head on the pillow quite as a child would, and expect to have the bedclothes pulled over it. Unfortunately, however, this luxury-loving kitten never grew to mature cat-hood, and so it had no opportunity to acquire other civilized habits. No other kitten has ever taken the place in the little boy's heart of the one that used to go to bed. TYLER E. GALE.

## Jolly Games for the Little Folks

## RHYMING COURTS

THE players in this game choose a judge and a sheriff. The judge takes a seat and the sheriff immediately runs after the rest of the players till one is caught. The prisoner is taken before the judge and the sheriff makes a charge.

The charge may be anything. For instance, the sheriff may say:

"I caught this person stealing some hay." The prisoner must answer in such a way as to make a rhyme. Thus the prisoner may reply:

"The sheriff's brain must be astray." The sheriff must respond at once with testimony, as, for instance:

"Why, I saw the prisoner do it." And the prisoner may answer:

"He wasn't there, sir, and he knew it." This continues until the prisoner fails to find an answer that rhymes, when he or she is thrust into a dungeon. If, how-



BAREBACK



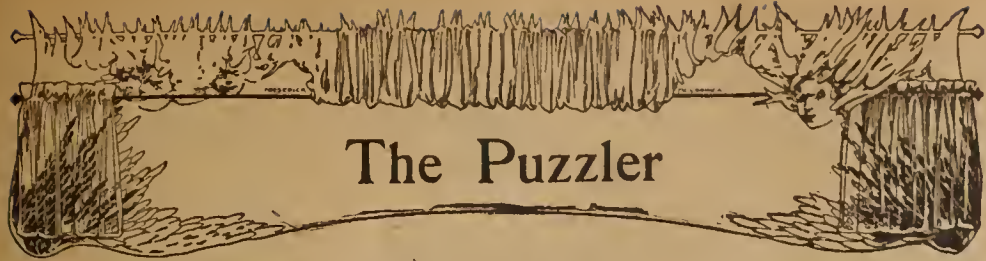
EARNING HIS SALT.

"His grave is just down that path where the big monument is. This is for the next grave," she went on taking up a clumsy little evergreen wreath with only a few flowers stuck in it here and there.



HAVE A DRINK?





## The Puzzler

The Six Puzzle Pictures Represent as Many Different Occupations Common to Americans



Answer to Puzzle in the May 15th Issue : Adze, Shovel, Awl, Pick, Plane, Maul

### The California Earthquake

SAN FRANCISCO is slowly rising from its ashes to more beautiful and greater proportions. Hopeful and courageous, its citizens have put their shoulders to the wheel and their energetic work is well manifest in the city's present condition after so frightful a calamity. The city of San Francisco experienced two earthquake shocks, powerful enough to wreck some buildings and damage many others. Fires were thus started, and the greatest destruction came from this source. The rupture of the city water mains made the situation the more appalling, preventing the fighting of the flames by the usual method. Even at this late date it is impossible to reckon the number of lives that were lost. Flames temporarily made homeless a great proportion of the population of San Francisco and Santa Rosa and for a time some suffering resulted from the inefficient water supply and lack and scarcity of food. The promptness with which the whole country responded to the needs of the sufferers tells a beautiful story of American patriotism and generosity. And to the sister states of California special thanks are due for the immediate relief rendered, so important to saving lives and relieving sufferers. And while it was a noticeable fact that there was a general response from the whole of our own country, especially noteworthy are the contributions and goodly intentions of the foreign powers. The way our friends in Canada and across the Atlantic as well as the Pacific offered help must indeed be very gratifying to every American. San Francisco's calamity has never been equaled in this country by anything of its kind and it is the hope of the prayerful people that it may never occur again.

Back in the early 70's individual fortunes of \$100,000,000 or over were unknown. What was said to be the largest individual contribution to sufferers of the Chicago fire was \$50,000, given by A. T. Stuart, of New York. This contribution may seem small in comparison with the great gifts to the San Francisco sufferers. For instance, E. G. Harriman's gift was \$200,000 and Messrs. Rockefeller and Carnegie contributed \$100,000 each. But relative to means or fortune the Stuart gift was much larger than either of the latter. California has and is receiving freely of the country's sympathy as manifested in practical ways, and so much help as she

shall need she may have freely. The country is proud of the efforts of the citizens of San Francisco and other towns in their already glorious achievements toward the rebuilding of their homes and businesses.

### The Ferris Wheel No More

THE great Ferris wheel, which during its career has carried aloft hundreds of thousands of pleasure-seekers, and which was the wonder of the two world's fairs, became a prey of dynamite in St. Louis on the 11th day of the past month. Forty-six sticks of dynamite were touched off in the concrete base early in the morning, but the explosion merely blew off parts of the foundation without causing the wheel to topple. Drillers immediately began work to put in a much larger charge, in order to destroy the great wheel and foundation which weighed 4,200 tons. Mrs. W. G. Bennett, wife of the superintendent of the Chicago House Wrecking Company, touched off the explosion at 4.20 o'clock in the afternoon. The destruction of the monster wheel was an interesting event and was witnessed by a large crowd. There was a dull boom and the monster wheel as though fighting for life, slowly turned one fourth of its distance around, its last revolution on its axle, then it stopped, the truss rods began to quiver and bend and the whole was soon a mass of tangled and twisted iron and steel.

The Ferris wheel, during its stay at both the Chicago and St. Louis fairs, was viewed with admiration and wonder by millions of people from all over the world, and it had carried countless thousands of passengers, hailing from every nook and corner of the earth. It was a marvel of engineering science and was one of the great attractions of both fairs and was always a money-maker.

The wheel was 264 feet high and carried 36 cars, with a capacity of 60 passengers each. Twenty to thirty minutes were required for the round trip. The wheel originally cost \$300,000.

"Are you a friend to William Bliggins?"  
"That ne'er-do-well? I should think not, indeed!"

"Then you'll hardly be interested to hear that he has inherited a hundred thousand pounds."

"What? Dear old Bill!"—Exchange.

# Last Call



The great Farm and Fireside pony prize contest closes June 15, 1906. That is the last day on which you can mail subscriptions to Farm and Fireside and have them counted in the contest. Every contestant should take notice and remember this date.

The announcement of the winners will probably be made in the July 15th or August 1st issue of Farm and Fireside. The announcement will be made at the earliest possible time. The pony, carriage and harness, and all prizes will be shipped just as rapidly as possible. There will be no unnecessary delays. We guarantee that all prizes will reach their destination safely and just as quickly as possible, and that everyone who has entered this contest and has sent ten or more subscriptions will receive a prize.

This is the biggest and fairest contest ever conducted by any farm paper in the world.

## What To Do

No new contestants will be accepted from now on, so don't try to enter. This short talk is for those already in the race and who have complied with all the conditions.

Now is the time for each and every contestant to put forth his best efforts to win the pony outfit. There are more than two weeks left. Think how much can be done in two weeks! Of course, it means you must hustle, but it is a pleasure to hustle when things are coming your way. Don't let the grass grow under your feet these last few days, and success is yours, sure.

**FARM AND FIRESIDE**

Springfield, Ohio



# Practical Fashions for Every Day



No. 752—Box-Plaited Russian Dress and Knickerbockers

Pattern cut for 2 and 4 year sizes. Quantity of material required for 4 year size, four and one half yards of thirty-six-inch material, with one fourth of a yard of contrasting material for trimming.

Though with the pattern of this dress full knickerbockers are given, it is long enough to wear with a short petticoat if preferred. The front of the dress is made with three box plaits, and there are four of the plaits at the back; an applied yoke adds to the good style of the dress in front. The sleeves are full, and finished with a flaring cuff. Any of the good-wearing wash materials, such as chambray, Oxford suiting, linen, madras or pique may be used satisfactorily for this Russian dress.

**C**HILDREN'S clothes this summer, like those for grown-ups, depend upon the new little touches to give them a smart style. It's the detail that counts. In the general outline of the dresses there is nothing decidedly new, with perhaps the exception that the waist line is not quite so long as in the conventional French dresses. It is in the collars and cuffs, the belts and the fastenings that the new ideas are introduced.

A very simple little dress, for instance, with a straight, gathered skirt attached to a waist, is made to look entirely new by its very novel collar and cuffs. The collar, which is of all-over embroidery, is square at the back, and is made pointed in front, with the right side at the neck buttoned over to the left. The flaring cuffs carry out this same buttoned-over idea. Illustration No. 757 shows this novel little touch.

Then there is another new-style collar shown on this page in the little plaited

dress with the vest, No. 754. This dress is cut low and square at the neck and its collar is a square one at the back. It is made with pointed tabs which come over the shoulders and button to the dress in front. The effect is new and pretty.

A berthia with a very long, square-shaped tab in front makes another good-style finish for a waist; then there is the applied yoke of embroidery, which is in points both at the top and bottom.

An attractive way of varying the effect of the always-popular Russian suit is to fasten it in surplice fashion.

Box-plaited Russian dresses are made up into very smart little garments with an applied pointed yoke in front, and no suggestion of it at the back, the box plaits running right up to the neck.

A stylish little sailor blouse suitable to make up in serge, flannel, madras or Oxford suiting is made double breasted, and with a sailor collar which is cut round instead of square.

In planning one's spring and summer gowns this year there are many colors which are equally fashionable to choose from. Grays will be much worn, especially a very new light gray known as tuberos. Heliotrope and lilac are in favor as well as many geranium shades. There is a new tint of geranium pink called apple blossom which will be fashionable as a trimming color, and fraise (strawberry) will be smart for silks, linens, and for the design in many of the filmy cotton materials. For costumes lobelia will be a good tint. This is a soft shade of blue which bears a striking resemblance to the old-fashioned bluet. The greenish water blue will be worn, and pastel blue



No. 711—Eton with Vest

Pattern cut for 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-two-inch material, or three yards of thirty-inch material, with five eighths of a yard of twenty-two-inch material for the vest.

No. 712—Panel Corset Skirt

Pattern cut for 24, 26 and 28 inch waist measures. Quantity of material required for medium size, or 26 inch waist, twelve yards of twenty-two-inch material, or ten yards of thirty-inch material.



No. 713—Fancy Eton

Pattern cut for 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 38 inch bust, four yards of twenty-two-inch material, or three yards of thirty-inch material, with five eighths of a yard of silk for vest.

No. 714—Circular Skirt

Pattern cut for 26, 28 and 30 inch waist measures. Quantity of material required for medium size, or 28 inch waist, eleven and one half yards of twenty-two-inch material, or nine and one half yards of thirty-inch material.



No. 753—One-Piece Box-Plaited Dress

Pattern cut for 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, four and three fourths yards of twenty-two-inch material, or two and three fourths yards of thirty-six-inch material, with three eighths of a yard of all-over embroidery for yoke and cuffs.

This little gown looks the prettiest in all white. Pique is a good material to use with either blind or openwork embroidery for the applied pointed yoke. Twisted shaded ribbon is used for the belt, finished at the side in a big rosette. The dress buttons in the back, and a hem finishes it at the bottom.



No. 754—Plaited Dress with Vest

Pattern cut for 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, four and five eighths yards of twenty-two-inch material, or three yards of thirty-six-inch material, with five eighths of a yard of all-over embroidery for trimming.

No. 755—Dress with Tab Bertha

Pattern cut for 8, 10 and 12 year sizes. Quantity of material required for medium size, or 10 years, five and three fourths yards of twenty-two-inch material, or four yards of thirty-six-inch material.

No. 756—Surplice Russian Suit

Pattern cut for 2, 4 and 6 year sizes. Quantity of material required for medium size, or 4 years, four and one half yards of twenty-two-inch material, or three yards of thirty-six-inch material.

as well. The browns are all in fashion, and café au lait, apricot and sulphur yellow will be worn.

Many vest effects will be seen in the new frocks, and trimmings will be lavishly used—laces of all kinds, and braids which are marvels of beauty. One of the latest and smartest ideas for a spring or summer costume is Nos. 711 and 712.

This costume is very attractive in gray satin-faced cloth, crepon of Eolienne, with the Eton of gray chiffon velvet. The vest is of pale-blue silk, and the embroidered design which trims both the corset skirt and the jacket is worked with fancy braids in delicate blue and gray.

Among the new materials are seen many hair lines forming large checks on smooth cloths, and shepherd's plaids are also in evidence. Shaded cloths will be worn, and a great variety of the sheer fabrics, such as Eolienne, fancy crapes, voiles and crepons. It will be quite the smart thing this year to have in one's summer wardrobe a black and white shepherd's plaid frock, with just a touch of some striking color as its trim-

ming. A good-style model which will be in fashion for a long time to come is the one referred to as No. 713 and 714.

Black and white shepherd's plaid is used for this jacket-and-skirt costume, with Niagara green silk for the piping. The circular skirt is made with a seam down the center front, and it is fitted with darts at the upper edge, closing in habit effect at the back. The skirt is cut away at the bottom in the front, and a box-plaited portion applied. The green piping outlines panel in front, finished with tabs.

A new little fashion fad for the summer evening dance is the sash which is used to hold up the skirt. One end is tied in a bow which is tacked to the skirt, and through one of the loops the girl slips her hand.

## NOTICE

The Pattern Department of The Crowell Publishing Co. will hereafter be located at 11 East 24th St., New York City. Kindly see that your order is addressed to our New York office.



No. 757—Dress with Buttoned-Over Collar and Cuffs

Pattern cut for 4, 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, five yards of twenty-two-inch material, or three yards of thirty-six-inch material, with five eighths of a yard of all-over embroidery for trimming.

## PATTERNS

To assist our readers and to simplify the art of dressmaking, we will furnish patterns of any of the designs illustrated on this page for ten cents each. Send money to Pattern Dept., The Crowell Publishing Company, 11 East 24th Street, New York, and be sure to mention the number and size of the pattern desired.

Our new spring and summer catalogue of fashionable patterns, containing two hundred of the latest designs that will be appropriate for all occasions, is now ready, and will be sent free to any address upon request.



No. 758—Sailor Blouse Suit

Pattern cut for 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, four and three eighths yards of twenty-two-inch material, or two and three fourths yards of thirty-six-inch material, with one half yard of contrasting material for shield and cuffs, and one half yard of lining for waist.



## Sunday Reading

### Author of Temperance Education Laws Dead

MRS. MARY H. HUNT, prominent in the Woman's Christian Temperance Union, and known throughout the country for her efforts on behalf of temperance education in the schools, died at her home in Dorchester, Mass., April 24th. She was born in Salisbury, Conn., July 5, 1830.

Mrs. Hunt was superintendent of the world's and national department of scientific temperance instruction of the W. C. T. U., as well as national organizer. Through her efforts a bill was passed by the New Jersey Legislature in 1894 to supply for its school-children a series of text-books on hygiene in which special attention was paid to the effect of alcohol on the human system.

Her methods in dealing with legislators attracted widespread attention, and she succeeded in having adopted in nearly every state provision for scientific instruction in temperance in the public schools, as well as in the United States military and naval academies.

She established a wide reputation as a writer and lecturer on temperance topics, and since 1892 she published the "School Physiology Journal." She was once asked by a noted divine why she had entered the anti-alcoholic crusade. "I became convinced that if the nation were to be saved," she said, "it must be by the wide dissemination of actual knowledge concerning the nature and effects of alcohol upon the body, mind and soul of man."

Mrs. Hunt spent many thousand dollars from her private purse in temperance work. In her last illness she directed the work of her department of the W. C. T. U. from her bed.



### What Constitutes Success

HE HAS achieved success who has lived well, laughed often and loved much; who has gained the respect of intelligent men and the love of little children; who has filled his niche and accomplished his task; who has left the world better than he found it, whether by an improved poppy, a perfect poem or a rescued soul; who has never lacked appreciation of earth's beauty, or failed to express it; who has always looked for the best in others, and given the best he had; whose life has been an inspiration; whose memory a benediction.—Prize winning essay by MRS. A. J. STANLEY, Lincoln, Neb.

### The Old Farm Home

IN a recent issue of "People's Progress," Freeman Miller, the poet-editor, has this eulogy of the old farm home:

"The old farm home means the most of all; it is away from the noise and conventionalities of the town, away from 'make-believe' men and women, out among the broad acres, where the song of every bird and breath of every zephyr, and the odor of every flower tells us the love of Mother Nature.

"The people of the old farm home are envied of the earth; the business man, and those worn out with the rush of the times, dream of a time when they can go back to the farm.

"What a torrent of thoughts and emotions rush through brain and heart, as we stand at the gate of the old farm home, that ceased twenty-five or thirty years ago to be our home.

"The trees under which we played are so much larger now. The old orchard bears many familiar marks; here and there a tree claimed and named by some member of the family.

"We see the apples under the trees. When children we rushed to gather the fruit shaken from the boughs by the wind-storms. There are the narrow paths to the barns and the pasture gates that were so well trodden by little feet. There are the wild flowers and the wild berries, waving as bright as they did when tiny hands plucked the blossoms and fruit as they drooped the cows to the garden gate.

"Here is the great maple tree as we sit under its shade, the birds singing just as the other birds did, among the other green leaves—what a memory panorama it is.

"Before the little country church was

built, meetings would be held in some new barn being built in the neighborhood. We children, the day before the meetings were opened, would skip over the pine boards, which were placed to seat the large congregation, and inaugurated the first services. Each one of us in turn occupied the minister's platform and desk, while the others formed the congregation. It did seem really a grand affair after the meetings began in earnest. The women and children were given the seats, and the men and boys climbed to the beams on either side in front of the mows which had been partly filled with newly mown hay."

### San Francisco

Amid the crash and jar of Nature's mighty throcs,

A jewel in our country's crown is lost. Like bauble in the hands of Titan fops, Man's proudest monuments of art are tossed.

Its royal setting drew from far and near, Lovers of beauty, as to golden shrine. Little recked they of danger or of fear, Of hot-breathed foe, whose tongues of flame would sear;

Leaving its victim but a corpse upon its bier.

But far above the cries and wails and bitter moans,

A sound is borne as on the wings of wind.

'Tis a world's sympathy; in deepest tones Quick succor proffering; and thus mankind

In hour of need their brotherhood hath proved.

Nor rich, nor poor, nor high, nor low; but man

Lies prostrate, helpless; and all hearts are moved,

And hands outstretched in offices of love, Such anguish to relieve; from impulse born above.

Be of good cheer, O stricken ones! A future bright,

Yea, brighter far than e'en the wondrous past

Awaits you; and the glorious morning light

Your hearts shall gladden. Midnight doth ne'er last!

Undaunted courage, victory shall declare! Your "Golden Gate" a gate of gold shall prove;

And to your portals brother's hands shall bear

Rich gifts which you will gladly, proudly wear;

Proofs of a sympathy, forbidding dark despair.

And San Francisco on the rolls of fame Proudly shall stand, a justly honored name!

—Sarah Martyn Wright.

### Strengthen the Home Ties

DEVOTION to business is important; pleasurable recreation is essential to health; but love of home and delight in the friendships of the fireside are the most ennobling and the most precious of all earthly activities and blessings. Hence the importance of their being appreciated and fostered, says "Religious Telescope."

Business should not be permitted to detract from the love of home. Social recreation at the summer resorts should never be allowed to infringe upon the friendships of the fireside. Neglect the home until it is no longer a home, sever the fireside ties until they lose their power to entrance, thrill with joy and satisfy, and you have lost what makes life worth living.

Home, home! sweet, sweet home! Be it ever so humble, there's no place like home.

### A Prayer for Love

God, give me love! I do not only pray That perfect love may be bestowed on me;

But let me feel the lovability Of every soul I meet along the way,

Though it be hidden from the light of day And every eye but Love's. Oh, I would see

My brother in the monarch and the bee— In every spirit clothed in mortal clay!

Give me the gift of loving! I will claim No other blessing from the Lords of Birth.

For he who loves needs no high-sounding name, Nor power nor treasure to proclaim his worth;

His soul has lit at Life's immortal flame A lamp that may illumine all the earth.

ELSA BARKER.



### The Kind That Never Leaks

Unseasonable weather never troubles an Amalite roof.

Amalite lasts for many years and needs no painting, coating nor repairs.

This seems almost incredible, but such is the case.

Once properly on your buildings (and it is so easy to lay that any man can do the work), you can absolutely forget about it.

The rain may fall in torrents, but it will not be necessary for you to worry nor make temporary repairs, as on shingle, tin or ordinary ready roofings.

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No repairs nor painting means no expense for nails, shingles, paint, carpentry work nor tinsmith's labor.

Not one cent for any kind of repairs for many years.

And the cost of Amalite is so small that you will marvel at its wonderful wearing qualities.

All the information that you could desire in the form of a booklet, together with a free Sample, will be mailed upon request to any one wishing to know more about this famous roofing. Address our nearest office. BARRET MANUFACTURING COMPANY, New York, Chicago, Philadelphia, Allegheny, Kansas City, New Orleans, Cleveland, St. Louis, Cincinnati, Minneapolis, Boston.



## HEADACHE AND NEURALGIA

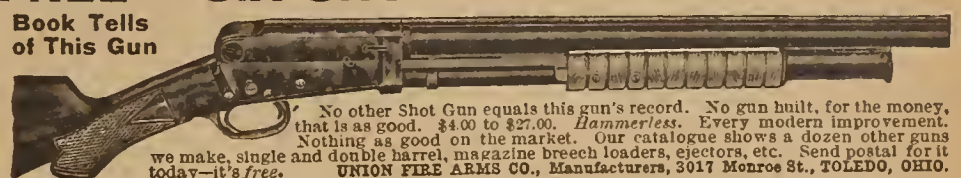
QUICKLY CURED BY USING DR. WHITEHALL'S MEGRIMINE

Write for a trial box—we send it without cost. If you suffer from headache or neuralgia, Megrimine is a necessity—the most reliable remedy on the market. Cures any headache in thirty minutes. After one trial you will never be without it. Twenty years of success places Megrimine at the head of all remedies for painful nervous troubles. For sale by all druggists, or address

The DR. WHITEHALL MEGRIMINE CO., 304 N. Main Street, South Bend, Ind.

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## Cow Peas.

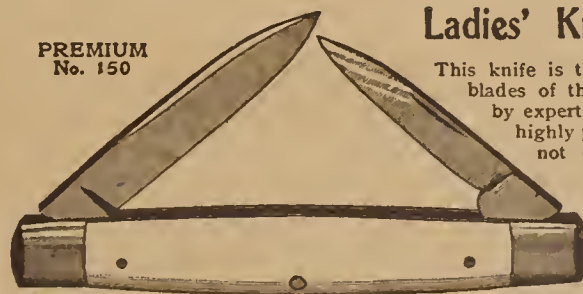
WE ARE HEAD-QUARTERS for Cow Peas, Soja and Velvet Beans, Sorghums, Millet Seed and all Southern Seeds. Write for prices and "Wood's Crop Special" giving timely information about all Seasonable Seeds.

T. W. Wood & Sons, Seedsmen, Richmond, Va.

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and boys in every city and town, who are bright and energetic, and who want to make some money for themselves, or who would like to have a steady income. It is the most pleasant work possible, and will bring you in contact with the finest people. The work can be done after school. Write us at once. Address Circulation Department, FARM AND FIRESIDE, Springfield, Ohio

PREMIUM No. 150



## Ladies' Knife—Ivory Handle

This knife is the finest grade of cutlery. It has blades of the very best cutlery steel, tempered by experts, ground to a keen edge and then highly polished. This knife is hand forged, not drop forged, and on that account every knife is sure to come up to the highest standard of quality. The illustration is actual size. This Ladies' Knife has a beautiful ivory handle of the newest design, with German silver trimmings.

This Ladies' Ivory-Handle Knife will be given FREE to any one for a club of FOUR yearly subscriptions to Farm and Fireside at the regular price, 25 cents each.

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### "Indian Mary" and "Old John"

THE pale-face race makes use of the red man and even the red woman in more ways than most people know about. Some of them have performed acts of heroic character, but have died victims of adverse circumstances.

The picture of "Indian Mary" and her dog is shown on this page. Indian Mary was the daughter of a full-blooded Potawatomi squaw and a white man named LaSalle. She married a man named Cochran, who enlisted in the Union army, his Indian wife following him wherever he went. She is known to have performed signal service around the army headquarters, as a nurse, and in more than one instance brought a pale-face sufferer back to life. In a battle in Missouri her husband's regiment was captured. The soldier

the consequences might be disastrous. It must be that nearly everybody now suffers from a crooked spine because the discovery was not made earlier that such a rule should be enforced. Hitherto school authorities have mistakenly assumed that nature would correct the unfortunate tendency under consideration; that is, that when a boy got tired of carrying his load



THE EARTHQUAKE AT HEALDSBURG

All brick buildings and chimneys were either badly damaged or destroyed. The frame buildings generally withstood the shock. No lives were lost in this town

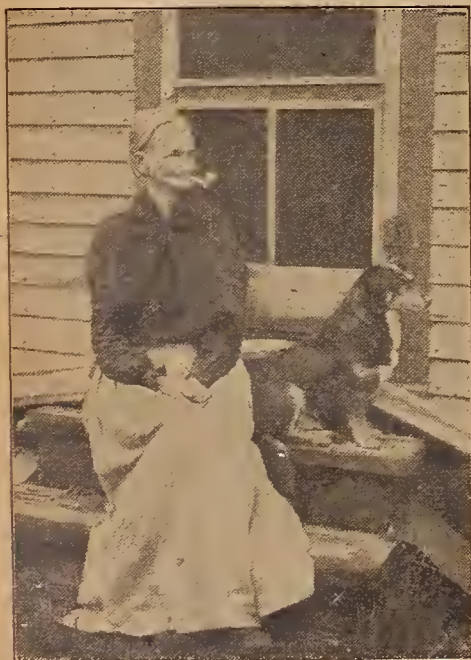
and his dark-skinned wife escaped, and later on Cochran became a member of the famous Irish Brigade, and still later he deserted and cast his fortunes with the Confederates. Indian Mary returned to her old home near Stevensville, Michigan, where she was allowed to wait for the necessities of life. She was refused a pension because of the fact that her husband had become a deserter.

"Old John," shown in the picture, will be remembered for years to come by a large number of Nimrods who each year were accustomed to camp in the northern Minnesota woods. John was relied on as a guide and a general utility red man as long as he lived, and he is said to have gotten eight miles beyond the century mark when he crossed to the happy hunting grounds.

J. L. GRAFF.

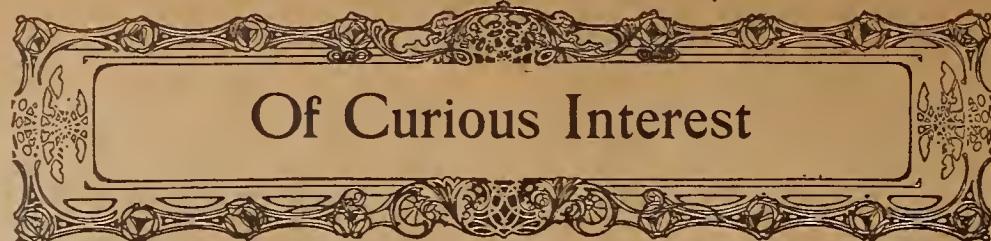
### Right and Left

IT is announced that the public school teachers of New York have received orders from the Board of Education to require pupils to carry their books under their right arms on even-dated days and under their left arms on odd-dated days.



"INDIAN MARY" AND HER FAITHFUL FRIEND

It is explained that this will tend to the equal development of both sides of the body and to avert danger of curvature of spine. Should any pupil happen to make a mistake as to dates and carry his books under the right arm on an odd-dated day



## Of Curious Interest

man composer: "I shall hear now!" (He was deaf.)

BOZZARIS, MARKOS (1790-1823), Greek patriot: "To die for liberty is a pleasure and not a pain."

BROOKS, PHILLIPS (1835-1893), American clergyman: "I am going home."

BUCKLAND, FRANCIS (1826-1880), English naturalist: "I am going on a long journey, and I shall see many strange animals by the way."

BURKE, EDMUND (1730-1797), English statesman: "God bless you."

BURNS, ROBERT (1759-1796), Scotch poet: "Don't let that awkward squad fire over my grave."

BYRON, LORD (1788-1824), English poet: "I must sleep now."

CHARLES I. of England (1600-1649): "Remember."

CHARLES II. of England (1630-1685): "Don't let poor Nelly (Nell Gwynne) starve."

CHESTERFIELD, LORD (1694-1773), English courtier: "Give the doctor a chair."

COLUMBUS, CHRISTOPHER (1440-1506), Italian navigator: "Lord, into thy hands I commit my spirit."

COWPER, WILLIAM (1731-1800), English poet: "Feel? I feel unutterable, unutterable despair. What does it signify?"

CROMWELL, OLIVER (1599-1658), English statesman: "My desire is to make what haste I may to be gone."

FRANKLIN, BENJAMIN (1706-1790), American philosopher: "A dying man can do nothing easy."

FREDERICK THE GREAT of Prussia (1712-1786): "We are over the hill. We shall go better now."

GILBERT, SIR HUMPHREY (1539-1583), English navigator: "We are as near heaven by sea as by land."

GLADSTONE, WILLIAM EWART (1809-1898), British statesman: "Amen."

GOETHE (1749-1832), German poet: "Open the shutters and let in more light."

GREELEY, HORACE (1811-1872), American journalist: "It is done."

HALE, NATHAN (1755-1776), American patriot: "I only regret that I have but one life to give to my country."

HAVELOCK, HENRY (1795-1857), English general: "Tell my son to come and see how a Christian can die."

HENRY, PATRICK (1736-1810), American orator and patriot: "Here is a book (the Bible) worth more than all others ever printed; yet it is my misfortune never to have found time to read it. It is now too late. I trust in the mercy of God."

HOLMES, OLIVER WENDELL (1809-1894), American poet and prose writer: "That is better, thank you." (To his son, who had just assisted him to his favorite chair.)

HUMBOLDT, FREDERICK (1769-1859), German savant and traveler: "How grand these rays! They seem to beckon earth to heaven."

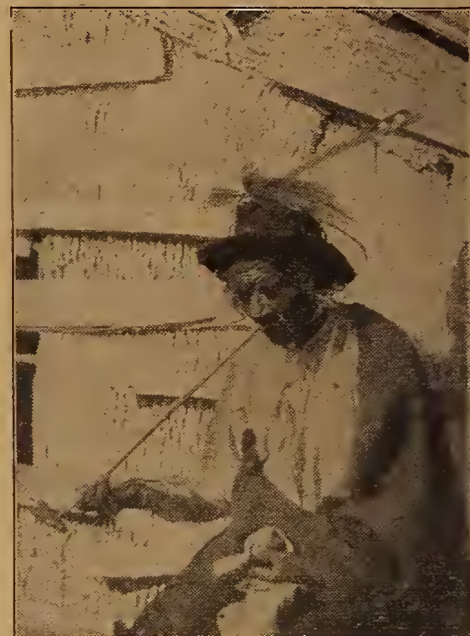
KEATS, JOHN (1795-1821), English poet: "I feel the daisies growing over me."

LATIMER, HUGH (1472-1555), English reformer: "Be of good cheer, brother; we shall this day kindle such a torch in England as I trust shall never be extinguished." (To Nicholas Ridley, who was burned with him.)

LAWRENCE, JAMES (1781-1813), American naval officer: "Don't give up the ship."

### Up Against It

A PRIZE of \$2,000 has been awarded by the Paris *Matin* to the anonymous inventor of a new method of getting rid of houseflies. The method is strictly scientific, and, it is claimed, will completely destroy the eggs, which are usually deposited in drain pipes. Crude petrol mixed with water is used for household



"OLD JOHN," FAMOUS AS A GUIDE

disinfecting purposes. The drain pipes become lined with the oil, which both kills the eggs already there and precludes the deposit of others. When desired the petrol can be poured on fine soil and the latter sprinkled in corners. This, it is said, is thoroughly efficacious in destroying the eggs. The operations should be carried out in the spring to obtain the best results.

### Vine Grows Through Oak

A LARGE oak tree near Chandler has a live grape-vine growing through the solid trunk.

The swaying of the tree and vine has kept a loose hole worn through the live tree. The grape-vine is more than an inch in diameter and reaches the top branches of the tree and bears luscious fruit.—Kansas City Journal.

### Strange Observance

IN South America, where visitations of earthquakes are frequent, the buildings, of course, are especially constructed for safety in such calamities, but there is a curious recognition of the peril of life in

of books under his right arm he would put it under his left arm, or swing it over his shoulder—any way to secure relief from fatigue, particularly when the load includes several unabridged dictionaries; but it must be remembered that the boys of previous generations were fairly supplied with intelligence and common sense and did not require a rule to notify them when one arm got tired and that relief could be secured by shifting the burden to the other arm.

Under the new rule, by the way, shifting the burden will not be allowable. When a youth starts for home with his books under his right arm on an even-dated day, he must carry the load under that arm the whole distance, however much he may suffer from fatigue. To be caught on June 2nd with his books under his left arm would ruin his standing for precision and obedience. To chuck them into the rear end of a delivery wagon and catch on would damage the whole beautiful system and probably put a twist in his spine from which he would never recover.

The new generation might be able to get along with the same instinct under which the former generations have survived, if the faculty of acting and thinking for themselves were not atrophied by the substitution of a lot of idiotic rules for the exercise of their own wits.—From the Rochester Democrat and Chronicle.

### Last Words of Famous Men

WHEN a man is in the full flower of health and intellectual activity, says the "Scrap Book," his utterances, either guarded or careless, usually are more or less tinged by his social environments—environments that are rather more artificial than natural. But when the shadow of Death falls upon him, and earthly vanities crowd out of the chamber that is marked as the vestibule of his tomb, the language he speaks is that of the man himself—one who realizes that he is nearer eternal truth than human pretense. For this reason the last words he speaks on earth are more significant of his true character than any he has spoken before. No better proof of this fact may be adduced than is to be found in the following collection of sentences uttered by dying men, who, having become famous, were unable to cloak their idiosyncracies from the searching eyes of those whose observations find a place in history:

ADAMS, JOHN (1735-1826), American statesman: "Jefferson survives."

ADAMS, JOHN QUINCY (1767-1848), American statesman: "This is the last of earth! I am content!"

BEETHOVEN, LUDWIG (1770-1827), Ger-



THE EARTHQUAKE AT SAN JOSE

Ruins of a four-story building, occupied as a dwelling and clothing store. In the collapse of this structure one man was killed and a number injured

JEFFERSON, THOMAS (1743-1826), American statesman: "I resign my spirit to God and my daughter to my country."

JULIAN (331-363), Roman emperor: "O Galilean, thou hast conquered!"

the Peruvian town of Cuzco. For three centuries, ever since the Spanish occupation, a special festival is celebrated in Easter week in honor of "Christ of the Earthquakes."—Kansas City Journal.



## In a Miscellaneous Way

### The Great Royal Wedding

THE GREAT royal wedding of the season has been that of the Princess Ena of Battenberg, England, to King Alfonso XIII. of Spain. Society of a curious world has followed the romantic courtship with marked pleasure, and shown much interest in the several elaborate functions incident to the main event on the last day of May. Before the formal announcement of her betrothal some months ago the princess, who had been a member of the English church, was received into the Roman Catholic church.

King Alfonso is the only living monarch who has been king from the moment of his birth, all other rulers having passed at least a few years of their infancy under the rule of their parent or a regent. King Alfonso is certainly a true son of Spain in his looks, and his

The wick should be cut with as thin an edge as possible. If it has a broad burning surface at the top the flame will be yellow instead of white.

The chimney should fit tight to the brass burner, so as not to let air in where air is not wanted.

The holes at the bottom of the burner should be kept open, so as to let plenty of air in where air is wanted.

The wick should not be turned so high that it will char or smoke.

An old chimney lets a better light through than a new one, and a shallow bowl lamp is better for poor grades of oil than a deep bowl lamp.

The wise housewife will paste these facts on her oil-can. This will keep them in her memory, and they will incidentally be a standing reproach to the oil man whenever he comes around.

### Alexis "Skidoos"

GRAND DUKE ALEXIS, who for a time during the Russian-Japanese War undertook to run the Emperor of Russia, the government itself and conduct the war in the East, has become disgusted with his nephew, the czar, and has shaken the dust of his native land forever off his feet. He has purchased a sumptuous palace in Paris, said to be the stateliest private residence, with the exception of the Trianon, in the French capital. Russians generally are said not to have become at all sorrowful on account of his leaving and it is not expected that he will create much of a stir in his newly adopted country of France.

### How to be Wretched

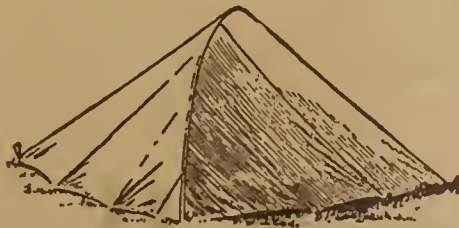
HERE are a few rules for becoming miserable, which the Augusta "Journal" gives: Don't look on the bright side of anything. Don't permit yourself to see good in anyone. Don't have any charity for your erring brother or sister. If you have any of the milk of human kindness in your heart curdle it in some way. Believe that all men and women, too, are liars and the truth is not in them. Find fault with your fellow-man. Say mean things about your neighbor; envy her; hate her; seek your own; scrap if you don't get it; think evil; rejoice in iniquity; endure nothing; believe nothing, and if you are not completely miserable and unhappy it is because you have not yet quenched the last vital spark of love in your being.

### For Summer Campers

FRANK H. GOTCHE, of San Francisco, Cal., has recently patented a new tent which seems to combine many desirable features. The frame of the tent is made



FRAME UP AND COVER READY TO STRETCH



TENT READY FOR OCCUPANCY

up of four wooden sections, which are held together by metal couplings. When ready to pitch the tent, the frame is bent into a semicircle, and the ends driven about six inches into the ground, the distance between them being twice as many feet as the tent is high. The cover is then pegged down on one side, and tightly drawn over the frame, being so shaped that it will be completely supported and at the same time will stand a very severe gale without being blown down.

"My son is taking algebra under you this term, is he not?" remarked the fond father to the Boston High School teacher. "Well," answered the pedagogue, "your son has been 'exposed' to algebra, but I doubt if he will take it."—New York Tribune.

### The Use of Oil

THE Interstate Commerce Commission's hearing of the charges against The Standard Oil Company has made it possible for the housewife to learn a few tricks of the oil business. The scheme has been exposed as to how poor oil can be made to burn well and how good oil can be made to burn poorly by a little manipulation of the lamp. The tricks that the Standard Oil Company used to the injury of its competitors, says the "Record-Herald," will be critically studied by the housewife, because they will give her information that she can use to profit in her own business:

The wick, to begin with, should hang straight down into the oil. Then the oil will pass up more freely to the flame, and a better light will be obtained.

## Tools for Business

The best hand tool a farmer can use is a Keen Kutter tool. A Keen Kutter hoe, fork, shovel, or scythe will do more hoeing, pitching, shoveling, or mowing than any other similar tool—because it is better adapted to its work and stands more hard wear. Farmers accomplish more, and make more when they use

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Ask your dealer to show you tools bearing the Keen Kutter trade mark. If he does not have them write us.

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LAP CEMENTED DOWN

## ROOFING

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CAREY'S Roofing has well earned its reputation of making the only really "time-proof roof." In laying it, the lower sheet extends two inches under the upper sheet. (See illustration.) The two sheets are securely nailed on to the roof boards, after which the Carey patent lap—an extension from the upper sheet—is cemented down and over nail-heads and seam, making an absolutely perfect, water-proof, wind-proof, rust-proof, sun-proof and time-proof union of sheet to sheet and Roofing to roof board. Then again, Carey's Roofing resists fire, will not melt, rot, dry out, crack, break nor lose its elasticity. It is equally adapted to flat or steep surfaces. For these and other good reasons fully set forth in our free booklet, Carey's is everywhere accepted as the best protection for any and all buildings about the farm.

Carey's Roofing is cheaply and easily laid over old shingle or metal roofs.

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## No Better Knife Made



PREMIUM No. 415

We illustrate herewith a three-bladed knife which is known as the "Yankee Whittler," and it is a fine knife for general purposes. The blades are of the very best steel, hand forged, and carefully tempered the same as a razor blade. It has good solid handles, nicely trimmed, and it is one of the most serviceable knives we have ever offered. It is warranted by the manufacturers to give the best of satisfaction and to carry a keen edge. Sent prepaid.

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## A Judge of Tea

A SUBURBAN gentleman, somewhat of a gourmet, discovered that his wife was giving him tea at 1s. 4d. to drink. He had never complained about the quality of the tea, but no sooner did he discover the price than he detected all sorts of shortcomings in the article, and when he went down to business that morning he dropped into a tea-store and bought a pound of orange pekoe at 3s. 6d. This he carried home in the night, and, taking the opportunity of the kitchen being empty, he hunted round till he found the tea-caddy, which was nearly full. The contents of this he threw away and replaced out of his own package. It had not been his intention to say anything about the substitution, but next morning he could not help referring to the immensely improved quality of the beverage they were drinking.

"This is something like tea, this morning," he said. "Don't you notice the difference?"

"No, I don't," said his wife. "It tastes to me exactly like the tea we have been drinking for the last month, and so it should, for it is the same tea."

The husband laughed.

"That's just like a woman," he said. "You never know what is good and what isn't unless we tell you. Now, I could have told you with my eyes shut that this tea is better than what we have been drinking."

"It is a pity you haven't been drinking



## Wit and Humor



her money really went for: During her engagement she bought herself a three-hundred-and-fifty-dollar piano and a one-hundred-and-fifty-dollar diamond ring, and in a few weeks lost the ring; there was always some regret that she didn't lose the piano.—Atchison Globe.

## Mark Twain and Billiards

Mark Twain was among the spectators one evening at the billiard tournament in New York. He declared that the game of billiards had soured his naturally sweet disposition, and he told of the incident which brought about this result. When he was a reporter in Virginia City, Nev., he was rather fond of the game, but being rather impecunious in those days he usually looked for "easy marks." A stranger came to town and opened a billiard parlor and Mark, after looking him over, proposed a game. "Just knock the balls around so I can see your gait," said the stranger. After Mark had done so, his new acquaintance said: "I'll be perfect-

wagered. "If you can play like that with your left hand," said Mark, "I'd like to see you try with your right." "I can't," said the newcomer; "I'm left-handed."

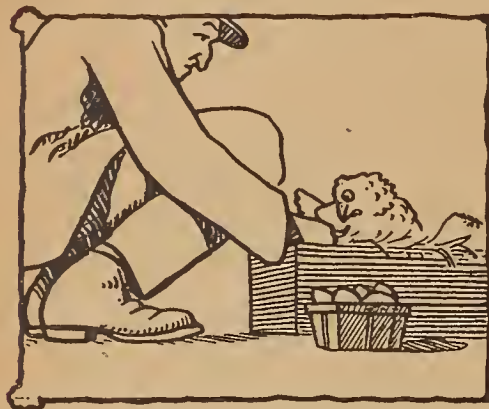
## Not a Darned Fool

Years ago, when telephones were still a novelty, a farmer from the outskirts of Manchester, N. H., came to town one day

An Atchison man, "The Globe" says, was showing a fine horse that attracted the attention of a man who was looking for a family horse. "Can a woman drive him?" inquired the would-be purchaser. "Yes, a woman might drive him," replied the owner, "but I would hate to live with the woman that could drive him."

## A Telephone Dog

An up-to-date dog is one that answers the telephone. The senior partner of an influential London firm has taught his dog not only to guard the office during his absence, but also to report "All's well" during the time the premises are closed at week ends. One of the old-fashioned telephones, which does not require that the receiver should be taken off its holder, is fixed up in the office, and under this the dog stands. His master rings up the office



Farmer—"I'll stop this old hen from setting. I'll put china eggs under her."  
Hen—"I'll show you whether you will or not."



ANOTHER ALARM-CLOCK

"What are you going to do with that live fly?"  
Bald-headed Man—"Going to turn him loose in my room. My alarm-clock's out of order, and want to get awake early in the morning."

and called on a lawyer friend of his, now United States Senator Henry E. Burnham, whom he supplied with butter, and who had a telephone recently put in his office. "Need any butter this morning?" asked the farmer.

"Well, I don't know," answered the lawyer. "Wait a minute. I'll ask my wife about it."

After speaking through the 'phone, he went on: "No; my wife says no."

The farmer's face was a study for a moment. Then he broke out with: "Look a-here, Mr. Lawyer. I may be a 'rube' and have my whiskers full of hay and hayseed, but I'm not such a darned fool as to believe that your wife is in that box!"—Exchange.

and then calls until the attention of the dog is aroused, when the canine caretaker barks loudly to show that all is well with him and with the office.

## Why He Didn't "Butt In"

A boaster related to an admiring crowd some of his marvelous deeds. Afterward a smaller man who knew him well remarked to a friend that the boaster, to his certain knowledge, had never done the things he had claimed to have done. "And why," said the friend, "didn't you call him a liar then and there and let the crowd know just what sort of a man he is?" "For the simple reason," answered the small man, "that my nose is of a blamed sight more importance to me than his reputation is to him."

## In Boston

Here is a new story of one of those instructive Boston boys. Boston has some famous family names, in which the city in general and the possessors of the names in particular take a proper pride. Two such surnames are Cabot and Hallowell. A young Hallowell went to visit a young Cabot. When put to bed by his hostess he thus began his evening prayer: "Our Father, who art in Heaven, Cabot be Thy name." Being asked why he varied from the common form, the innocent replied, "At home I always say, 'Hallowell be Thy name,' but I thought it more polite here to say Cabot."—Judge

## As His Mammy Taught Him

A Southern judge tells of the disqualification of a jurymen who came before him. The case was a capital one, and the lanky backwoodsman declared determined opposition to capital punishment. Looking at him sternly, and in tones somewhat suggestive of wrath, the judge asked the fellow if he did not think there were conditions so extraordinary as to warrant the hanging of the offender. He said he did not believe anything could make him assent to such a verdict.

"But will your honor let me explain?" said the disqualified citizen. "I'd like to give the court my reasons."

"I don't wish to hear any explanation from you. Go and sit down."

"Excuse me, judge, but you must hear my reason."

"Well, then, give it, and go along with you."

"The reason I am opposed to capital punishment, your honor, is that my old mammy taught me it were a sin to kill anything that wasn't fitten to eat."

## Another Sort of Fowl

"The impudence of that young brother of mine!" exclaimed Mrs. Nagget. "He just told me I was no chicken when I married you."

"Well," replied her unsympathetic husband, "that's true enough. You weren't a chicken, were you?"

"No; I was a goose."—Catholic Standard.

## SOME NEW JERSEY NEWS ITEMS

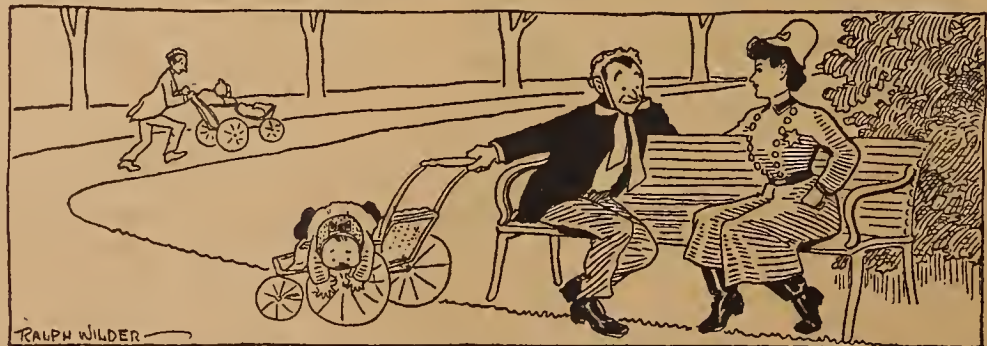
Bayonne, N. J., May 6—It is proposed that women officers take the places of the men now composing this city's police force.



Bayonne, N. J., June 1—Considerable difficulty is being encountered in recruiting the new police force, as many of the ladies have noticed the effect of the occupation on the men, and fear that wearing the Princess gowns now in vogue would soon become impossible.



Bayonne, N. J., August 3—An investigation of the police force is on, and the officers are being "piperized." Charges are made that instead of traveling their beats they attend bargain sales and loaf around candy and millinery stores.



Bayonne, N. J., September 7—The change made in the police department of this place last spring seems to have opened a new occupation for men. Since the advent of the lady policemen many gentlemen nurse-maids have appeared in the parks and breathing places. It is said they are willing to work for so little that the old-style nurse-girls have been entirely supplanted.—Record-Herald.

## Far-Seeing Servant

A country minister who invited his flock once a year to supper in the school-room intrusted his "handy man" with the delivery of the invitation cards. A day or two before the function his reverence found his man sitting by the roadside in an advanced state of hilarity, and totally oblivious to all earthly condition.

"Good gracious, Jenkins! what does this mean? How did you get into this state?"

"It's all along o' the cards, sir. I takes 'em round and this 'un asks me to take a nip, and that 'un asks me to take a nip, and so I gets like this."

"Why, this is terrible! Are there no temperance people in the parish?"

"Lor, yes, sir, lots of 'em, but I sends their cards by post."—Harper's Weekly.

## His Wife's Money

Once upon a time a man married a woman who had inherited five hundred dollars from a grandfather. This was all she ever received, but the man never got credit for his efforts the rest of his life. He built a new store. "Did it with his wife's money," the neighbors said. The home was made over and enlarged. "His wife's money did it," was the only comment. The little measly five hundred dollars she inherited was given the credit for everything he did during life, and when he died and his widow put up a monument with his life insurance, "Her money paid for that," was said again. But this is what



## Wit and Humor

### Easily Counted

A few years ago there lived in Thetford, Vt., a man by the name of Solon R. Berry, who was deputy sheriff for many years, says "The Boston Herald." He concluded that he would like to collect the taxes. Accordingly he supplied himself with ballots, and on arriving at the meeting he selected a man by the name of Porter to help him. Taking Porter to one side, he disclosed his plan to him, and after bracing Porter up two or three times, from the hip pocket, he gave him the batch of ballots with instructions to distribute them at the proper time.

At last the moderator called for a ballot for collector of taxes and when the votes had been counted announced that Berry had only three votes.

Of course, "Sol," as he was called, was disappointed. Finding Porter alone in



Sheep—"Don't be afraid, froggie."  
Frog—"I won't if you'll give me your word and honor that you're a strict vegetarian."

one corner of the hall in quite a contented frame of mind, he said: "This did not turn out as I expected."

"Neither did it as I expected," said Porter.

"There is something about it I don't understand," said Sol.

"That is just the fix I am in," said Porter. "You voted for yourself and I voted for you. That makes two votes."

What I can't understand is where did that other vote come from."—Cincinnati Commercial Tribune.

### Kentucky Humor

One of the jokes of which Kentuckians never grow weary concerns Senator Blackburn and his loyal appreciation of the liquid products of his native state. The Senator had gone to pay a visit to a friend of his who lived many miles distant. His friend met the Senator as he alighted at the station.

"How are you, Joe?" his friend asked.

"I'm up against it," was the reply. "I lost the best part of my baggage en route."

"Did you misplace it, or was it stolen?" his friend inquired solicitously.

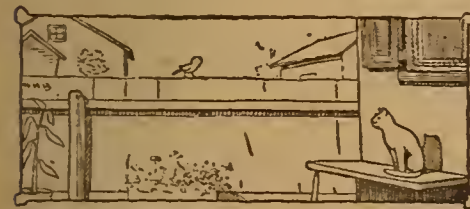
"Neither," said the Senator. "The cork came out."—New York Sun.

### An Honest Man—New School

Cassius R. Peck, Assistant United States District Attorney of Oklahoma, at a banquet in Guthrie recently, spoke on honesty. One thing he said was this:

"What are we coming to? Are we coming to such a pass that our ideas of an honest man will correspond with the idea of old Hiram Stroode?"

"Hiram Stroode, for the seventh time, was about to fail. He called in an ex-



Cat—"I wouldn't sing on that fence if I were you, birdie—it's dangerous work. I undertook to sing there one night and nearly had my head knocked off with a bootjack."

pert accountant to disentangle his books. The accountant, after two days' work announced to Hiram that he would be able to pay his creditors four cents on the dollar.

"At this news the old man looked vexed. 'Heretofore,' he said, frowning, 'I have always paid ten cents on the dollar.'

"A virtuous and benevolent expression spread over his face.

"And I will do so now," he resumed. 'I will make up the difference out of my own pocket.'—New York Tribune.

Church—"Silk worn next to the skin is warmer, and slightly more absorbent, than vegetable fiber."

Gotham—"I'll wear my silk umbrella next to my skin hereafter, then. It will be safer."—Yonkers Statesman.

Cut off that cough with

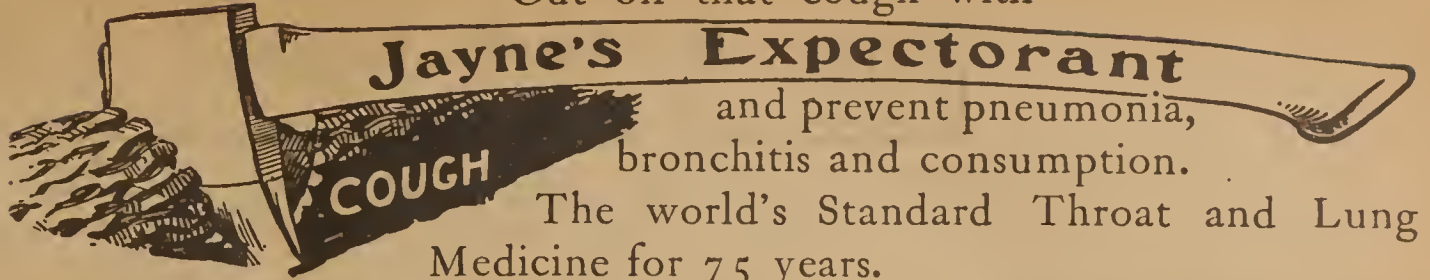
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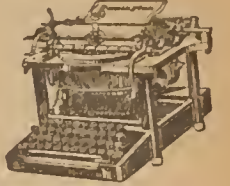
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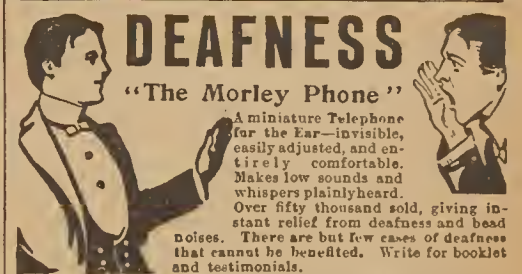


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### Wrongful Use of the United States Mails and Money Received Thereby

F. E. G., Ohio, asks: "If an assignee writes a letter and sends it through the United States mails regarding the borrowing of a sum of money that he deems necessary to pay indebtedness, and gives no account of same, has he committed a penitentiary offense, and used the United States mails for fraudulent purposes?"

If the party received money and did not use it for the purpose that it was received by him, he might be guilty of embezzlement. Whether or not it would be a misuse of the United States mails would depend very much upon the fraudulent purpose for which the money was gotten. You can report the matter to any postmaster or United States government attorney.

♦

### Husband Expending Money for Woman Not His Wife

N. H., Maine, says: "I wish to know if a man has any right to support another woman that is not any relation to him or to send this woman money, without his wife knowing it, if he has a family to support besides? If his wife holds property, can she leave him and make her husband support her (his wife)?"

There is something wrong when the husband is guilty of that kind of conduct, and while it might not be sufficient in itself to justify his wife leaving him, yet if the money he thus uses is necessary for the support of his family and they suffer because they are not properly supported, then unquestionably the wife could leave him. However, the entire matter would depend so much upon all the surrounding circumstances that a definite answer cannot be given from the facts alone stated in the query.

♦

### Recovery of Money Husband Has Secured from Wife

J. H. P., North Carolina, asks: "If a man marries a woman who has money, and he takes the money and builds a house with it, and after spending all of her money, then drives her off and won't let her live with him, would there be any chance for her to get her money back? There are no children. In what way can she get her money back?"

The only way that I know that this money could be gotten back would be for the wife to file a suit for divorce, or, if not divorce, for alimony, and then the court would take all these facts into consideration in determining the amount that should be allowed her.

♦

### Dun Sent to Collect Money for Goods Ordered but Not Sent, etc.

R. F. R., Pennsylvania, writes: "I answered an advertisement of a beautiful hair switch company, offering to send a lock of hair, but no goods were received from the firm. About six weeks later came a request for a remittance of \$1.50, and afterward came a dun from a collecting agency. At the bottom of this dun there was a statement that a daily bulletin is issued giving the names of all parties against whom suits are commenced and judgments obtained in all justice and upper courts in your county, and it is distributed in wholesale business houses, hotels, mercantile agencies, collection agencies, lawyers, and those interested in such matters, hence if such is commenced against you, your name will be published also."

This advertisement is probably a fake, and they have taken this means of frightening, etc., to compel a payment of the claim. There is no doubt in my mind that the threat is a violation of the postal laws, at least it is such that might be properly brought to the attention of the Post Office Department. I would pay no particular attention to the matter. The better class of newspapers and periodicals are fast adopting the rule to insert in the columns of their periodicals nothing but responsible advertising.

♦

### License to Sell Binder Twine, etc.

K. F. Y., Pennsylvania, inquires: "Can a farmer who sells binder twine and mowers for a general agent, having no contract between them, do so without a mercantile license? Could the retail merchants cause him any trouble if he had no license?"

I have not at my command the law relating to licenses for merchants in your state.

♦

### Husband Compelling Wife to Live with Him

H. S. L., New York, writes: "A. and B. are man and wife, having one son two years old. B. has four children from a former husband, all working in the city. A. is living on a farm and has means of providing for wife and child. B. is living in the city, keeping house for her four children, all of which are capable of caring for themselves. She also has A.'s son. She prefers staying with her children

## The Family Lawyer

Legal inquiries, of general interest only, from our regular subscribers will be answered in this department, each in its turn. On account of the large number of questions received, delay in giving printed answers is unavoidable. Querists desiring an immediate answer, or an answer to a question not of general interest, should remit \$1.00, addressed to "Law Department," this office, and get the answer by mail.

rather than living in the country with A. A. is a good, kind husband, and loving father, good moral character, with no bad habits, well liked by all his friends and neighbors. What steps can A. take to compel B. to live with him, or to receive custody of little son? B. agrees to live with A. for about three months during the summer, but A. wants and has need of wife all the time. Can A. receive child in case B. should not consent to live with A. all the time? Could A. receive separation or divorce on those grounds?"

While the law has given to the wife all her property rights, yet it still recognizes the fact that there is but one head of the family, and that is the husband. He has a right to choose the place of abode, and if his wife will not follow him to such place, then she is guilty of desertion, and if it continued for long enough time, would be a ground of divorce. As to which one the custody of the child would be awarded, this would be a matter left to the discretion of the court, the best interest of the child being the fact that would determine where it should go.

♦

### Dog Law

M. R., Ohio, asks: "I would like to know if my dog is trespassing on your farm, have you a right to kill it? What is the law in the state of Ohio?"

By the laws of Ohio, a dog is not allowed to run at large, and is subject to be taken up and impounded just the same as cattle or other stock. Under another provision it is provided that any animal of the dog kind that chases, worries, injures or kills any sheep, lamb, goat, kid, domestic fowl, animal or person, may be killed by any person or at any time or place, and if a dog is maliciously killed, the amount for which the dog is returned for taxation shall be the sum to be recovered, besides, if wrongfully killed, there might be a criminal prosecution. Sometimes in such cases a person is obliged to take the law in his own hands and put the dog out of the way.

♦

### Wife's Property Rights

A. H., Springfield, Ohio, asks: "I would like to know what the second wife's share in an estate would be, where the estate was free of debt before the second marriage, the first wife leaving heirs, the second wife no heirs, and still living?"

The above query is a little too indefinite. It does not state whether the property is real or personal. In the real estate, she would have a life estate in one third, and she would get one third of the personal property absolutely.

♦

### Collection of Note Against Ancestor's Estate

M. E. B., Ohio, inquires: "I would like to know, if I let my mother have money and take a note for it, and afterward she dies, and my sister and I pay all the debts and burial expenses, can I collect it when the farm is divided equally between us? The money was borrowed to pay taxes on the farm and I did not get any of it off the farm. I worked by the month for it, and I have paid my half of all debts, and now the question is, must I lose it now, or can I collect it from her? She knew all about it, and saw the note before we paid any of the debts."

Unless you would do something to show that you waived your right to collect the note it could be collected. This matter should be settled, however, before the real estate is divided. You could not collect the note from your sister, but you could collect it from your mother's property.

♦

### Inheritance by Husband, etc.

M. E. I. E., Springfield, Ohio, writes: "Twenty-five years ago a young man in Belfast, Ireland, married a young lady under age, contrary to her mother's wishes. To save himself from being imprisoned, they came to America. In the meantime a child was born. The wife and mother took consumption and wanted to return to Ireland, her old home, to die. The child lived some time after the mother died, and then it died. Could the husband and father get any of the estate, as the mother was heir to a considerable legacy? Would he be the child's heir or the mother's? Would it be worth while for him to try to get any of it? He is an invalid now, and can neither see nor walk. Importunities to the wife's mother do no good."

If either the wife or child were entitled

to a legacy or property during their lifetime, then I should think that he could recover some part of it, or on the wife's death, if she then had it, it descended to the child, and on the child's death it would go to the father; but this may be changed by the will or the manner in which the property was received.

♦

### Validity of Husband's Note

S., Ohio, writes: "If a man has a wife living in New York, can he give or sell some real estate to a woman whom he has been living with, and passing off to everybody as his wife, and owning the land. Are a few words legal on any kind of paper that he might give with his name signed to it, in payment of live stock, furniture and work done for him by said woman? Is she safe in taking his word that the farm is good for such notes with his name signed to them, as she owned furniture and live stock, and when he gets angry he claims it all and she works out in the field and raises chickens and now she wishes to leave and he claims everything unless she takes his note till fall. Is this note legal on this kind of paper?"

Yes, I should think that the husband's note would be legal. If he has any property it could be collected.

♦

### Right to Ice Between Seller and Buyer

N. C. T., Ohio, asks: "A. sold his farm to B. and gives possession April 1, 1906, and B. paid fifty dollars down. Can A. sell all of the ice cut on said farm without asking B.'s consent? Who is entitled to the ice?"

It occurs to me that, as possession is not to be given until April, that would imply that all crops raised thereon prior to that time may be removed, and the ice might be considered as a crop. Therefore, I would say that A. is entitled to the ice.

♦

### Farm in Name of Another—Minor

R. J. R., Ohio, writes: "I own a farm in Ohio. This farm is in my mother's name, I not being of age when I purchased it. Now I want to have her make a will, willing me this farm, besides my regular share which she wants to do. My father and four brothers and sisters also are living. She owns other property. There is no dispute in the courts or between us, but to be on the safe side and probably avoid a legal battle when she dies, I thought it best to find out. She will deed it over to me any time if I say so, but for some reason I wish to know if by her making a proper will, do I just get what belongs to me in the will? I believe my father signed the deed also."

Your mother could make a will if she so desired, but the better way, in my opinion, would be for her to deed the property to you. While a minor cannot deed his property, yet a deed made to him is good.

♦

### Inheritance—Deed for Life, etc.

A. B., Ohio, says: "A. and B. own (jointly and free of mortgage) real estate and personal property. They had three sons. C., the first, died (unmarried) at age of eighteen; C., the second, died at age of twenty-six years, leaving a wife and a child (boy, four years old); E., the third son, aged twenty-four years, is living. A. and B. have made no will. (1) If either A. or B. dies, would the property be divided? If so, in what manner? (2) If both die, how would it be divided? (3) Assuming that D.'s child receives a portion of the estate, in case of its death would such share revert to the estate, or pass to D.'s widow, thence to her second husband, or to her own blood relations? (4) Can A. and B. deed all their property to E. now, said deed to be properly recorded, etc., but not to go into effect until the deaths of both A. and B? (5) If such a deed can be given E., would it hold against any will or deed that A. and B. might make afterward, and also any claims that might be made by D.'s child, widow or her relatives?"

(1) If either A. or B. should die, the survivor would have a life estate in one third of the real property and one third absolutely in the personal property of the other. The remainder would go to their children. (2) If both should die, the property would go to E., as no one is heir to the living. (3) If the child did receive something, then it would go on his death to his mother, and from his mother would pass to her heirs and possibly to second

husband. (4) Yes, a deed of that kind can be made. (5) Yes, if such a deed was made it would hold, as neither A. nor B. could make a will that would dispose of property, which they had conveyed away in their lifetime.

♦

### Adverse Possession, etc.

E. S. K., Pennsylvania, writes: "A. owned a tract of land over twenty-one years ago. He divided this land with a fence. He deeded one side to B. and the other to C., with a reservation of the right of way to B. across C.'s land to a water-way. Since then, and quite recently C.'s side has been sold with the same reservation in the deed. Now, notwithstanding the reserve, C.'s representative claims the act of limitation precludes any claim of B., B. not having had occasion to avail himself of those rights."

When C.'s side of the land was sold with the reservation in the deed, that was an acknowledgment upon the part of all the parties to that transaction that there was a reservation, and consequently the adverse possession would start to run from the time that the last deed was made in which the reservation is mentioned.

♦

### Fixtures—Sale of Farm

A. L. H., Ohio, asks: "I sold a farm last fall to a man, and possession will be given this spring. I have two portable hog-pens and boards around tobacco beds. If the above was not reserved at the time of the sale of the farm, would I have a right to remove them from the farm?"

There is no question in law which has given courts more difficulty than that in relation to fixtures. Several things are well settled in Ohio, however, that as between seller and buyer the law favors the buyer—as between landlord and tenant, the tenant. Generally it is governed by the intention of the parties when the thing is affixed to the real estate, and it depends very much how these portable hog-pens were used. If in no manner attached to the grounds, and had no semblance of being a part of the real estate, then I think they would be personal property and the seller could take them. The same might be true as to boards around a tobacco bed; but if these boards are embedded in the earth and form a part of what might be a permanent bed, then they could not be removed. If this question applied to landlord and tenant there would be no doubt but what the tenant could remove them.

♦

### Claim of Soldier's Widow to Land Warrant

H. C. wants to know how and where to get a land warrant for his grandmother, whose husband served in the war as a union soldier. She is living and drawing a pension every three months and has due a land warrant, but has never taken it up.

Write to the Land Commissioner, Washington, D. C., and get full information upon such matters.

♦

### Distribution of Personal Property Controlled by Law of the Domicil of Deceased

B. M. S., Florida, inquires: "Do parties living in Florida getting personal property in Kentucky, it being money coming from the wife's side, release the administrator if the husband does not sign receipt from the administrator and only the wife signs it?"

This property would be distributed according to the laws of Kentucky, and by those laws the wife has full and absolute control of her own property, and therefore could properly receipt for it.

♦

### Queries Not Answered

The queries of B. S. K., Ohio and W. K., Ohio, are not answered, the first because it is not written plainly enough, and the second, because it is too long and too poorly written. Querists expecting a correct answer must write plainly and as briefly as possible. I suggest that before the query is sent, the querist examine it carefully to see that it properly states all the facts of the query.

♦

### Right of Life Tenant to Open Coal Mine, etc.

M. G., Ohio, inquires: "If a man wills his real estate to his wife as long as she lives, and after her death it is to go to another party, can the widow lease the oil and coal from under it, and has she a right to sell the timber off of it?"

At common law, the tenant for life had a right to use all mines that were opened up, but he did not have a right to open new ones, and I presume that this would be the law applied to oil or gas. A life tenant has no right to sell live timber, unless such sale would not materially affect the value of the estate of the estate in remainder.

*James M. Kel*



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Sizes 34, 36 and 38 inch bust measures.  
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No. 742—Dart-Fitted, Box-Plaited Skirt  
Sizes 24, 26 and 28 inch waist measures.  
10 cents.



No. 736—Plazza Coat  
Sizes 32, 36 and 40 inch bust measures.  
10 cents.



No. 538—Blouse with Triple Collar  
Sizes 32, 34, 36 and 38 inch bust measures.  
10 cents.

No. 539—Seven-Gored Outing-Skirt  
Sizes 24, 26, 28 and 30 inch waist measures.  
10 cents.



No. 658—Waist with Pompadour Neck  
Sizes 12, 14 and 16 years.  
10 cents.

No. 659—Double Skirt  
Sizes 12, 14 and 16 years.  
10 cents.



No. 564—Plaited Shirt-Waist  
Sizes 10, 12 and 14 years.  
10 cents.

No. 565—Side-Plaited Skirt  
Sizes 10, 12 and 14 years.  
10 cents.



No. 705—Dressing-Sacque with Fitted Back  
Sizes 34, 36, 38 and 40 inch bust measures.  
10 cents.



No. 401—Waist with Dutch Neck  
Sizes 14, 16 and 18 years.  
10 cents.

No. 402—Shirred Skirt  
Sizes 14, 16 and 18 years.  
10 cents.



No. 2015—Boys' Knee Trousers and Knickerbockers  
Sizes 4, 6, 8, 10 and 12 years.  
10 cents.



No. 628—Tailor-Made Shirt-Waist  
Sizes 34, 36, 38 and 40 inch bust measures.  
10 cents.



No. 750—Dress Sleeves  
Sizes Small, Medium and Large. For all three, 10 cents.  
Pattern cut for 32, 36 and 40 inch bust measures. Quantity of material required for double-puff sleeve with cuff, two and one fourth yards of twenty-two-inch material, or one and one half yards of thirty-inch material. Material required for three-quarter sleeve, one and three fourths yards of twenty-two-inch material, or one and one fourth yards of thirty-inch material. Material required for leg-o'-mutton sleeve, one and three fourths yards of twenty-two-inch material, or one and one half yards of thirty-inch material.

The increasing demand for our patterns has caused us to move that department to New York City



No. 2013—Work-Apron  
Sizes Small, Medium and Large.  
10 cents.



No. 737—Embroidered Waist with Chemisette  
Sizes 34, 36, 38 and 40 inch bust measures.  
10 cents.

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Sizes 24, 26, 28 and 30 inch waist measures.  
10 cents.

## ALL PATTERNS 10 CENTS EACH

When ordering be sure to comply with the following directions: For ladies waists, give BUST measure in inches. For skirt patterns, give WAIST measure in inches. For misses or children, give age in years. To get BUST and BREAST measure put tape measure ALL of the way around the body, over the dress, close under the arms. Order patterns by their numbers. Satisfaction guaranteed or money refunded.

## FREE

We will give any THREE of these patterns for sending TWO yearly subscriptions to FARM AND FIRESIDE at the regular price of 25 cents each.

We will send FARM AND FIRESIDE One Year, new or renewal, and any ONE pattern for

**Only 30 Cents**

For other new and up-to-date designs see page 20



### The Farmer and His Health

**F**ARMERS ought to be the healthiest folks in the world; but the fact is that the country physician has the best all-round practice of anyone."

These words from a man who has been located for a good many years in the midst of a good farming community should open the eyes of many who have been quite blind to the fact that as a class the farmer and his family are far from enjoying the good health they should. The next words of the doctor told a still more serious story. It will pay to listen to him.

"If the farmers would only take care of themselves we doctors would have to move out or starve. Farmers are called the shrewdest and most economical folks in the world; and yet, they pay the doctors more for useless work than any other class of citizens we have."

Pretty serious things for a man to say. I have been wondering if it can really be true that we as farmers are slack in this respect, as the doctors count slackness. I am afraid it is so. The more one looks into it, the more certain does it appear that we fail in many ways to live up to our privilege in point of health.

The doctor was right when he said the farmer folks ought to be almost immune from disease. Think of the pure water they might have to drink! Look at the fresh air and pure food they have always within their reach! The air they breathe is pure and untainted by any of the dangerous things that come between the city man and good health. The farmer's house ought to be free from the many defects which work such havoc to his city neighbor. Ought to be so. But—And thereby hangs a tale.

A little honest confession may be helpful here. I have some chapters written down in the book of memory that helps me to see that we are many of us extremely careless when it comes to the question of caring for our health. A few years ago I had a certain piece of grain to put in in the spring of the year. A storm seemed to be coming on. I doubted whether I would be able to finish the work before it began to rain or not; but I knew if I did not do the work then it might cause a delay of several days before the earth would be in fit condition to cultivate again. So we hitched the team to the drill and went out. We had not finished when the big drops of rain began to come down, slowly at first, then faster and faster. We hurried the team on, hoping to complete the job in spite of the storm. And we did it. But we went home wet through.

The good wife, always more careful about such things than we are, insisted that we should change our clothes; but there was other work to do about the barns, and we did not get around to do it until the dinner-hour. By that time something had happened. We began to feel chilly. Before night the fever was playing hide-and-seek with the chills and there was no place in the house warm enough to be in any way comfortable. Then followed a number of days of wrestling with what we in our simplicity call "hard luck," but which in reality was nothing more than almost criminal carelessness and neglect. Slowly we came out from under the shadow, but who does not know that every such cold leaves a person weaker and with a little less of vitality to resist future attacks of disease.

Chapter number two. Less than two years ago we had immense quantities of red and black raspberries. Of these we ate freely. It was in warm weather, the middle of August. Suddenly the man of the house became aware that his bowels were not doing their duty. In fact, they were decidedly rebellious, refusing to do duty. But he kept on eating the berries. They still tasted good. A sharp pain in the right side one evening after the day's work was over went by unheeded. A few days after that the pain came on again, with tenfold severity. This time the doctor came and kept coming for three or four weeks. It was a close chase between the master of the farm and death, and the race did not end all that fall, and in fact the danger never has fairly passed by since that day.

Now these are but specimen cases out of the great book of actual experience. On every farm whole volumes might be written, in which the different members of the household are the leading characters and the doctor the hero who gains the credit for making a grand rescue, or else sits down in the end to talk over with the ones that are left how inscrutable are the



ways of an all-wise Providence, when all the time it was only a wicked carelessness and an absolute disregard of the laws of health.

We ought to be able to find the lesson in all these things. But really such lessons are of little value after the loved one has been taken away. It does not take a very smart man to lock the door of the barn after everything worth while has been stolen. But let's stop now long enough to find the moral. If the master of the farm had only taken the counsel of his wife and changed his clothing that day when he was wet to the skin, he might have warded off the cold. I know some say if you "keep going" you can dry your clothes on you and so avoid the cold. The chances are against this. It is safer to take a little time to put on dry clothing than to run the risk of a chill.

And then, think what a degree of suffering might have been saved had this same man heeded the warning given by that first sharp twinge of pain due to the inaction of the bowels! Then was the time to ward off the disease that followed. How? Nine out of ten men would have taken refuge in the pill-box if they had done anything at all. In every household the box of pills is the never-failing panacea for all such stoppages of the bowels. But that is the most foolish thing imaginable. What then? Stop eating and drink plenty of water until the system has been purified of the dangerous stuff that clogs the alimentary canal.

I know of one farmer that had the habit of taking pills. He began with one or two and kept on until he would take six or seven great pills at one dose. The more he took the more he needed to bring about the desired effect. All the time nature and common sense would have helped him out of his trouble better and with much less danger if he had only given her a chance.

Most of the sickness on the farm is due to ignorance of the simple laws of health

## All Over the Farm

with which we are blessed rather than in the number of plasters on our backs or the number of pills we take at bedtime. This world has made wonderful progress in most ways; but it advances most slowly in the realm of personal care of health. This is the most important thing of all, for after health is gone, what is left worth living for?

*Edgar L. Vincent.*

### Improving the Bees

As with other stock, there is a great difference between individual colonies of bees. Some colonies will winter better than others; the bees of one colony will enter supers readily, while another colony will clog the brood-nest with honey, to the detriment of the surplus honey-crop.

Now the colony which gives the largest yield of surplus honey, and is desirable in other ways, should be used as a "breeder." To rear queens by artificial methods is not work for many farmer bee-keepers, but bees can be improved without "dipping" queen-cells or using wooden queen-cell cups, although "grafting"—transferring larvæ from worker-cells into queen-cell cups—will be necessary in the method of improving bees that I will describe.

After the best colony has been selected, you are ready for operations. If one has not a colony that is considerably above the average in honey-gathering, etc., a breeding-queen should be purchased from some reliable queen-breeder. I buy several queens every year in the hope of securing something better than I already possess.

When the swarming season opens, the brood-nest of every colony in the apiary should be examined once a week, and when one is found having queen-cells with

after the first swarm has issued, the parent hive is to be opened and all but one or two of the grafted queen-cells destroyed. If two cells are left an after-swarm will most likely issue, but when only one cell is left it may be one containing a defective queen. The best way to overcome these difficulties is to hatch one of the queens into a nursery-cage, then if the one that hatched into the hive appears to be the poorer of the two she can be killed and the one in the cage let into the hive.

In order to have the virgin queens mate with drones from the best colonies, the rearing of drones from poor colonies should be restricted as much as possible by removing drone-comb and replacing it with worker-comb; and by catching the undesirable drones in an alley drone-trap and killing them.

Though much more could be said about improving bees, I will only add that drone-rearing should also be restricted in the "breeder" colony, for inbreeding is no more desirable with bees than it is with other stock.

F. A. STROHSCHNEIN.

### My Way with Tomatoes

My present way of growing fine tomatoes is to train each plant to a five-foot stake, which I set about four or five inches from the plants. By doing so, the land between the rows can be worked deeply and a uniform supply of moisture can be maintained.

The rows are five feet apart so as to provide for a free circulation of air. At the time of planting I use ammoniated bone or acid phosphate as a fertilizer. Later, after the plants are a few inches in height, I use nitrate of soda. The best way to apply it is to thoroughly pulverize it, and mix an equal quantity of dry earth with it. In this way its even distribution can be secured. It should be covered with soil after being placed about three or four inches from the plants. When the plants reach a height of sixteen to eighteen inches, tie some strong twine tightly about the stake, and loosely about main stem of the vine, so as to allow it room to expand. Later, when the vines attain a height of twenty-five to thirty inches, tie up the vines again. Where the branches put out from the main stem, do not let any others start. Keep pinching out these worthless "robbers" as often as they appear. Keep the surface of the soil finely pulverized during the growing season. J. W., JR.

### Agricultural News Notes

In the vicinity of Baltimore, Md., the canning of peas will begin this year about the 20th or 25th of May, which is about ten days later than the average time.

The Canadian bacon producers claim that the Tamworth is the best breed for its profitable production. The select bacon hog is one that does not weigh over 190 pounds.

In future only educated and thinking men can succeed on the farm, as the requirements of farming are becoming so much greater and success more difficult to attain.

North Dakota is the leading flaxseed-growing state. Minnesota is a close second and South Dakota occupies the third place, with a production of four and a half million bushels.

The fact is becoming recognized that agricultural science offers to our best students, a career which is certainly not less attractive than that presented by the older and more conventional professions.

In a recent address Secretary Wilson urged the importance of teaching agriculture in the rural schools and of training teachers for this instruction. He asserted that "the power of the farm to create and produce has not half been reached," any more than has the power of man to produce. The agricultural college teaches the boy how to do things, how to do them better, and how to produce more.

### Books Noticed

Farm Science. Illustrated book of 128 pages containing eight chapters by specialists, as follows: "Alfalfa Culture in America," by Jos. E. Wing; "Modern Corn Culture," by Prof. P. G. Holden; "Best Methods in Seeding," by Waldo F. Brown; "Increased Fertility," by Prof. Cyril G. Hopkins; "Profitable Hay Making," by Prof. Thomas Shaw; "Power on the Farm," by Prof. Fred R. Crane; "Up-to-Date Dairying," by Prof. Clinton D. Smith, and "Small Grain Growing," by Prof. Willett Hayes. For a copy send three two-cent stamps to "Farm Science," International Harvester Co. of America, Chicago, Ill., and mention FARM AND FIRESIDE.



GRAFTING QUEEN-CELLS

or to a disregard of those laws. Stop long enough to think of those laws. I wish they might be posted in every farmhouse the whole wide country over.

Keep the source of the water-supply clean.

Do not permit the drains about the house to become clogged. Do all you can to make the premises clean. Disease has its home in filth.

Eat only wholesome, well-prepared food. Hosts of farmer folks are not as careful here as they should be.

Avoid exposure to storms. If you get wet, put off the cold, damp garments, and thoroughly dry yourself the first thing you do.

If you are not feeling well, do not take drugs, but do stop eating, and drink all the fresh water you can. Even the animals at the barn know enough not to keep on eating when they do not feel well. Are we less intelligent than they are?

Finally, use good, sound common sense about your house, your clothing, your food and your doctor.

Our boast should be in the good health

eggs or larvæ in it, the first work of improving the bees is to be done.

First, the larvæ in the queen-cells the bees have started must be removed with a toothpick, the tip of which has been bent at an angle of about forty-five degrees. Then a comb is taken from the "breeding-queen" that contains larvæ not more than twenty-four hours old—the younger the larvæ the better the queens, as a general rule—and a tiny "grub" or larvæ is put into the queen-cell from which the queen-larvæ was removed; the work being performed with a toothpick.

After one has had a little practice, queen-cells can be grafted quite readily, and several cells should be treated in this way, so as to be sure that at least one queen will be of the substituted larvæ.

As it will be necessary to tell the grafted queen-cells from those not treated, a toothpick or nail should be put into the comb above or near the grafted queen-cells.

The bees will finish the grafted queen-cells the same as those containing larvæ from their own queen, and about five days





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EVERY year vast sums of money are spent in the United States in trying to find out whether a particular fruit, vegetable or cereal will or will not thrive in localities where it has not been tested. Most of these experiments result in disappointment and pecuniary loss. What a man wants to know is how to tell in advance whether the conditions on his land are fit or unfit for the particular crop he has in view, and what crops he can raise with reasonable certainty.

Before the time of Liebig, there was no exact information concerning the composition of crops, the nature of the soil or the function of fertilizers.

Certain facts, determined from long experience, were made use of blindly. Chemistry as related to agriculture seeks to determine the nature of crops and their relation to soil. In the past this work was conducted in field experiments, where the conditions were uncertain, but during the last few years, in order to gain more accurate knowledge, the Department of Agriculture has experimented on soils gathered from all parts of the United States and placed in spots where all conditions may be controlled. The object is to discover the maximum amount of organic matter which can be produced under given circumstances.

The soil is the first problem a grower must consider, provided a favorable climate exists. The work of the Division of Chemistry is to study, for him, the origin of soils, the composition of the rocks, the action of water, ice and wind, and the crops that are best suited to different soils. It is through investigations in this manner that men have learned the causes of the impoverishment of soil, and the sources from which it can be recuperated.

The investigations of grasses and forage plants afford a line of work most intimately connected with the agricultural interests of the country.

Grasses are so common, growing everywhere, that we are apt to forget their vast significance in the economy of nature, and that they constitute the greatest of our agricultural resources, and form the very foundation upon which rests all our agricultural wealth and prosperity. According to estimates of the Division of Statistics the hay crop of 1904 alone amounted to nearly 61,000,000 tons, valued at about \$460,000,000 exceeding by a third the total value of the wheat crop. In addition to this vast quantity of hay, which would barely suffice to carry through the year the 16,000,000 milk cows owned by the United States, enough pasturage, fodder and green forage were supplied to feed 38,000,000 sheep, 31,000,000 cattle, 14,500,000 horses and 2,100,000 mules. A conservative estimate places the total annual value of the grass and forage crops of this country at more than \$1,700,000,000.

The United States is the first among the great nations of the earth to give official recognition to the importance of these crops by establishing in the Department of Agriculture a Division of Agrostology, especially devoted to working out grass problems.

During the year 1904, 6,000 trial packages of seeds from collections made by the division have been distributed, more than 3,000 grasses were identified for correspondents, and replies to more than 600 inquirers, relative to the methods of cultivation, uses and feeding value of grasses, were prepared.

To Dr. George Vasey, the botanist of the Department, is due in a great measure, the improvement of the forage supply of the United States. Thirty years ago the hay product of the country amounted to about 25,000,000 tons per annum. In the northeastern states the forage problem was already, in the main, solved, but in

## The Department of Agriculture

BY WILLIAM S. BIRGE, M. D.

the South and in the West there was a deplorable lack of suitable forage plants. New England and New York had brought their grasses and clovers from Great Britain, and, owing to a general similarity of climate, had found them satisfactory. Their use had extended to the Middle West with equal success. In the South, however, with the increase of stock raising in the cotton country, it was found that the old and well-known forage plants must be replaced by others, better suited to withstand the warmer climate. During the next decade, following the rapid depletion of the wild forage supply of the far West and the establishment of homesteads throughout that region, the similar discovery was made that the common forage plants of the East could not withstand the dry climate. For many years the department brought together by correspondence, information along these two lines, and, in 1884, collected it in the form of a book entitled, "The Agricultural Grasses of the United States."

In the year 1888 the sum appropriated for botanical investigations was increased from \$2,000 to \$20,000, and the establishment of forage experiment stations authorized, the principal one being at Garden City, in western Kansas. A large number of grasses, both native and foreign, were cultivated at this station without irrigation. At the end of five years experimenting,

when everything else was killed by the drought; that it was equal to maize for fattening hogs and feeding stock, and that it could be made into good bread. Since that time Kafir-corn has become the leading grain crop in western Kansas and western Oklahoma, and its cultivation is now thoroughly established.

The Division of Entomology is constantly investigating as to how the farmers and fruit growers may avoid damage to their crops by insects. Some new specimens may be sent to the department any day, with stories of its ravages, and this insect may require an investigation of months. By foreign correspondence, the division learned of a natural enemy of the white scale in Australia. An agent was sent to procure it, and as a result the orange and lemon industries of California were saved from probable extinction.

Seventeen years ago the department began the work on plant diseases in a small way; its efforts at first being devoted to a few of the more important diseases of fruits. At the time this work was undertaken, the growing of grapes for market was being abandoned in many sections, on account of black rot. This disease was shown to be due to a fungus, and further investigation showed how the fungus lived from year to year, part of the time its growth being confined to the living berries on the vine and part of the time to the old,



SOY-BEANS IN THE DEPARTMENT GROUNDS

after the various species clearly not adapted to the region had been thrown out year by year, the experiment resulted in the demonstration that two forage plants, Hungarian brome-grass and red Kafir-corn, and one grain, Jerusalem corn, were the crops best suited to cultivation in those portions of the southern great plains where irrigation was impracticable. A few other plants, principal among which was the Colorado bluestem, gave promise of success, and their cultivation has since been followed in other portions of the plains. This station was an object lesson to thousands of despairing farmers, and resulted in demonstrating to them that Kafir-corn could produce a good crop

object lesson for others. Five years later, however, carefully collected data showed that there were over fifty thousand grape growers treating their own vines in accordance with the directions issued by the department. It was found that the treated vines yielded on an average eighty per cent more fruit than the untreated, and that the actual gain as a result of the work ranged all the way from \$20 to \$150 per acre. The aggregate gain, as estimated by three hundred growers, selected by the department for this purpose, was something over \$20,000, while the expense, including labor and cost of materials used, did not exceed \$2,000.

Some years ago the department began an investigation of the diseases of nursery stock, carrying on experiments which extended through several seasons. Over a hundred thousand trees were used in the experiment, and it was shown that the cost of the work was twenty-five cents per thousand the first season, and the same the second year. The third year it was forty cents, making the total cost for three seasons' work ninety cents per thousand trees.

The net profit, as determined by the nurserymen who dug the trees and sold them, ranged from \$1 to \$40 per thousand, the average being \$13, or about 1,400 per cent on the actual money expended.

The same diseases that cause such serious trouble in the nursery also affect many grown trees in the orchard; in these cases an expenditure of rarely exceeding fifteen cents per tree produces such practical results that the marketable product can be increased from twenty-five to fifty per cent.

The Biological Survey has been of great service to the farmer in defining the natural agricultural belts of the country, and ascertaining what products can and cannot be grown in each, and also to point out his friends and enemies among the birds and mammals that are native to the land.

Birds have long been the farmer's most valuable aid in his battle with the insects that play on and oftentimes commit such havoc on his crops. How important it is then that he should not destroy them that do such important service. Since its establishment in 1885, the division has examined the stomach contents of over 20,000 birds belonging to 225 species and sub-species, and has published information on the food habits of 150 kinds.

The Department of Agriculture found that it had many difficult problems to contend with connected with the animal history of the country, and in consequence the Division of Animal Industry was created. One of the most important duties that presented itself before the new bureau was to try and arrest, and if possible eradicate, pleuro-pneumonia from the country. Experiments were made to demonstrate whether it was of a contagious nature. By the original legislation only diseased animals could be purchased for slaughter, but the contagion could not be eradicated while exposed animals were left in the stables to develop the disease and infect other animals. In 1887 authority was obtained to purchase and slaughter exposed animals. From this time there was no extension of the disease, and the infected districts were rapidly freed from it. Since 1892 no case of contagious pleuro-pneumonia has been discovered in the United States.

For a period of ten years our pork was shut out of nearly every market of continental Europe on the ground that it was infested by trichinae and was injurious to health. In 1891 the bureau began the microscopic inspection and certification of pork destined to the markets of the

[CONCLUDED ON PAGE 5]



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## Comment

FOR awhile it seemed that the free-alcohol bill was to be indefinitely pigeon-holed in Senator Aldrich's committee, but public opinion brought it forth, and it was promptly passed by the Senate.

After January 1, 1907, alcohol for use as light, fuel and power will be free from the tax of \$2.08 a gallon, and there will be a new and important factor in the industrial development of the country.

"The only piece of graft of which we can all get a piece," in the language of one of its congressional advocates, is not to be abolished at this session of Congress. In spite of sound arguments and strong protests from farmers' organizations, the farm press and the seedsmen, free distribution of common garden and flower seeds is to be continued another year at least.

The House restored the free-seed appropriation to the agricultural appropriation bill. The Senate Committee on Agriculture unanimously expressed an opinion against it, but said the time was not opportune for abolishing it, and the Senate passed the bill with the free-seed provision in it.

The fight, however, will go right on. This petty graft has been scotched, if not killed.

## Publicity

If there is virtue in publicity, the people of this country will certainly be greatly benefited in the near future. If the exposure of great evils in business will result in the abolition of discrimination and special privilege, and in stopping corpora-

tions, big and little, from defying the laws of the land, equal opportunity will again be a living principle under our government, and the republic will have a chance to survive.

The investigation by the Interstate Commerce Commission at Chicago and Cleveland of the business methods of the Standard Oil Company revealed some of the unfair and foul means by which it piles up inordinate profits. The testimony showed how it climbs up by pulling others down; how it strangles competition by dishonorable schemes and illegal acts, and how it ruins its rivals by stealing telegrams, bribing railway employees, getting secret freight rebates, and by a hundred other methods devised under its spirit of conscienceless greed.

The investigation by the Interstate Commerce Commission at Philadelphia of discrimination in the distribution of freight cars revealed an astonishing condition of affairs in the Pennsylvania Railroad Company. To secure unfair advantages and cripple competitors by keeping them from getting cars, favored coal companies have been bribing railroad employees on a magnificent scale. According to the testimony the black line of conspiracy and bribery runs clear through the great Pennsylvania system, from the gift of a dollar bill to a common freight hand to a bond bonus of over \$300,000 to President Cassatt's assistant.

Investigations of Chicago's "Packing-town" have shown how millions have been coined out of the sale of meats unfit for human food.

A special grand jury in New York is supplementing the Armstrong Legislative Committee in bringing to light the fraud and corruption in the management of life insurance companies, by which policyholders have been fleeced out of millions of their savings.

In brief, publicity is the order of the day. But while publicity is bringing about reforms in business, what will it do to the reputations of the financiers and captains of industry who have been parading about among their fellow-men as princes of respectability? Publicity is revealing the true character of some eminent citizens. Millions to education and religion may buy a temporary, tinsel halo, but the everlasting good name is above price. For nineteen years Mr. John P. Gruet served the rulers of Standard Oil. He knows the men and their methods. In a recent New York "World" interview revealing the methods he says of the men:

The men who rule the Standard have wealth and position, but not honor among their fellow-men. Why has the world withheld honor, the one thing that is bestowed only when well earned? The conditions under which oil became one of the necessities of life were naturally such that honor was the certain reward that would be unstintingly given to the man who utilized a natural product for the good of mankind.

When the new earth-product was found, John D. Rockefeller put into motion the methods of utilizing for the benefit of the people what nature gave. Then why is the world's good opinion lacking when this master developed to the full this new contribution?

Money is the answer. Greed of gain came upon the scene, and the struggle began to get all of nature's gift within the control of self and levy tribute on the world that would make riches quickly, regardless of the rights of man.

## The Beveridge Bill

The United States Senate can do business with remarkable despatch whenever occasion makes it expedient. On May 25th, without debate, delay or objection, it adopted the Beveridge meat-inspection bill as an amendment, or rider, to the agricultural appropriation bill.

Senator Beveridge's bill is a drastic measure providing for government inspection of all live stock and all meat products handled by packing-houses for interstate as well as foreign trade. It goes much farther in every respect than the present law, and provides for a thorough system of meat-inspection in the interests of the domestic consumers. In the light of startling exposures about the "condemned-meat industry," there can be no doubt about the absolute necessity of strict federal supervision and inspection for the protection of domestic consumers.

Under the present system meat products condemned by the inspectors as unfit for the foreign trade are dumped on Amer-

ican dinner-tables. The Beveridge bill requires the federal inspectors to cause the destruction of all meat products condemned as unfit for human food. The bill will become a law, and its enforcement will compel the preparation of all sound meats under proper sanitary conditions and will prevent the sale of unsound and diseased meats. But its strict enforcement will depend largely on aroused public sentiment.

It was reported from Washington that the packers who, at first, strongly opposed the Beveridge bill, suddenly changed tactics when they found that President Roosevelt had ready for submission to Congress the report of the special investigation of the Chicago Stock-yards by Neill and Reynolds, of the Department of Labor. Their report is said to verify the exposures of the Beef Trust made by Upton Sinclair in "The Jungle," and the assertion of expert Smith, of the London "Lancet," that the conditions in Chicago were worthy of medieval barbarism and a disgrace to American civilization.

Mr. Sinclair says:

The publication in full of the report of Reynolds and Neill on the conditions as they found them in the Beef Trust would be worth twenty Beveridge bills. The packers who brought the most tremendous pressure to bear to defeat that measure have turned squarely about and now are eager to have it become a law, if they be assured that the report will be suppressed. On the shoulders of the people of the United States will rest the responsibility if they do not demand that the full story of the findings of the commissioners appointed by President Roosevelt be made public.

It will be to the interests of the producers of live stock and the consumers of meats to have the exact truth about the slaughtering business made known. If conditions are as bad as represented, there will then be enough public sentiment to back up the strict enforcement of any just meat-inspection law, no matter how drastic and paternal it may be.

*J. B. Barnett.*

## No Secrets Wanted

IT is a safe rule to absolutely and emphatically refuse paying good money for anything offered as a secret in agriculture. I have yet to find the first so-called "secret" in agricultural methods or practices, or secret recipes, etc., that is worth paying money for. Any innovation of real value, any new method or practice that has real merit, is sure to become quickly the property of the public, while the things advertised by unknown parties as "secrets" for a money consideration, and under the pledge of keeping them secret, are not worth the postage stamp on the letter containing the remittance.

If any reader wishes to spend money for secrets, let him buy standard agricultural works, or the periodicals in his particular line or brand of agriculture. If he is a fruit grower, he wants a copy of Downing's, or Thomas', or Barry's celebrated books on that subject, and so on in other lines. All soil tillers can find a great many "secrets," and problems, and mysteries, with more or less complete solution, in the various books and treatises on the chemistry of plant foods and soil physics, and the stock raiser and feeder may find the secrets of successful stock feeding in the literature published on that subject. But these are secrets open to all, and nothing which you are required to keep as a secret.

## The Secret of the Seedless Apple

"Mr. Spencer, where did you get it?" is the rather pointed question which some of the farm papers at this time are addressing to the man who so persistently booms the Spencer Seedless apple. It seems to me that Mr. Spencer shows discretion in refusing to notice all this, that is to him probably an annoying display of inquisitiveness. It is enough having once for all stated that he evolved this apple "by a secret process of his own."

I believe, however, that I could easily duplicate the trick, and send out the "Jones" or "Smith" or "Greiner Seedless" apple, and all the secret there is about it is to prevail on the owner of one of the many "seedless apple" trees which are

found in various places in Ohio, West Virginia, in some of the Western States, etc., to sell me the tree, or at least part of the scions for grafting, and then topwork a hundred, or a thousand, or ten thousand, of young seedling apple trees, enabling me to soon offer to the public just that many of the wonderful "Jones" or "Smith" or "Greiner Seedless" apple, with the chances in favor of its being just as good a fruit as the "Spencer."

This apple, *per se*, is hardly worth all the attention it has received and the columns of space that have been devoted to its discussion, yet the protection of the hundreds or thousands of readers who may be tempted by the alluring descriptions of the wonderful new fruit to buy trees (of a fair value of fifteen or twenty cents apiece for people who really want them) at the rate of one or two dollars per tree, is worth the space and the attention I give it. My secret I offer "free gratis."

## The Secret of the Laying Hen

Another secret has just been offered to me at the modest price of ten dollars. This I would call the secret of the laying hen. According to my best information and belief, one Walter Hogan, of Wisconsin or California, really thinks he has discovered a method by which he can tell simply from outer appearances whether a pullet will develop into a heavy layer, a middling layer, or a poor layer, or whether a cockerel is of the laying blood and will be likely to transmit heavy laying qualities to his daughters. The possessor of this valuable secret offers to impart it to anyone who will send him an X and an iron-clad agreement signed by the purchaser and wife or sweetheart not to divulge the secret to anyone.

Heretofore poultry keepers who are working their fowls for eggs, and were trying to develop the two-hundred-egg hen, had to make use of the "trap-nest." This new method promises to do away with such a cumbersome method and contrivance, all for the modest sum mentioned. According to information I have from people who have tried the Hogan plan, it looks plausible all right, yet the trap-nest discovers heavy layers in the lot of fowls which are picked out as poor layers by the Hogan system, and poor layers among those selected by the same system as heavy layers. But for the agreement of secrecy which I and wife would have to sign, I would be tempted to spend the X in order to be able to give the secret to the readers of FARM AND FIRESIDE.

In my estimation, the use of the trap-nest is the only safe and certain way of discovering the laying qualities of the individual hen, and I would not advise the reader to spend \$10, or \$5, or even \$2, for any secret method of selecting the good layers. And if we keep such breeds as the Silver-Spangled Hamburgs, every hen of which seems to make it her particular business to lay an egg a day, we don't even have to use trap-nests to know what our hens are doing. They make no secret of their productiveness.

## Gift-Bearing Greeks

From my school-days I have never forgotten the wise saying found in our early Latin lessons: "Fear the Greeks, and all the more if they bear gifts." It came back to my memory when reading the news that the lower house of Congress had "jumped" on the Committee on Agriculture, and insisted on the continuance of the seed-distribution nuisance.

It is a strange situation. Congress is determined to make presents to the farmer; and the farmer, far from being pleased or thankful, struggles with all his might against receiving them. He realizes that the free-seed gift, although in point of cost a mere trifle in this billion-dollar country, is nevertheless an absurdity and an abuse, and that he has to pay dearly for it in other ways, as for instance by the refusal of the larger benefits to which he is entitled, such as the parcels-post, fractional currency or some equivalent. But the vote in Congress on this question again shows that the opposition to the abuse is rapidly growing, and that the end will soon be in sight.

*A. Greiner.*

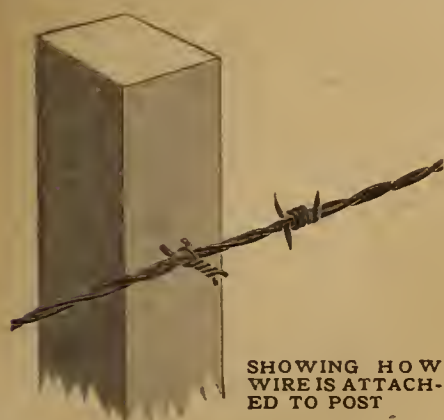


## About Rural Affairs

### The Status of the Dust Spray

SOME of our readers may remember what I have said about the dust spray, and that I have never been enthusiastic over it. I doubted its full effectiveness from the start; but it is on general principles that I am opposed to the use of any strong poison in dust form. Even with the most careful application, when engaged in throwing dust over trees or vines, in orchard, vineyard, garden or field, we cannot avoid inhaling at least portions of the dust. For that reason I prefer liquid applications with which the danger of inhalation seems to me far less. Now we have also plenty of evidence available that the dust applications are not so effective as those of fungicides in liquid form.

Professor Hedrick, horticulturist of the New York State Experiment Station at Geneva, for instance, made the following statement at the February meeting of the New York State Fruit Growers' Association (Poughkeepsie): "The dust spray has been tried in this state and a number of Eastern states, but has not been nearly as effective as the liquid sprays. It may be



SHOWING HOW WIRE IS ATTACHED TO POST

used to advantage on land where it is difficult to get about with the spraying apparatus. It is fairly effective with plum and peach rot, and also fairly effective with codling moth, but for apple scab it is not to be recommended at all. From the experiments that have been carried on in this state, I should say that the dust spray was not to be recommended."

I feel that the original position I took in this matter was correct, and still advise my friends to apply the various remedies for plant diseases and insects in the liquid rather than in the dry form. Some exceptions may be made perhaps in favor of dry tobacco dust, insect powder (buhach), and possibly hellebore for the currant-worm.

### The Use of Fruits

The New York State Fruit Growers' Association at their meeting in Poughkeepsie again heard Miss Anna Barrows, Boston's famous cooking expert, give her ideas on preparing fruits for table use. It is undoubtedly true that fruits have recently come into much more common use than they ever were in our history before, and that their consumption has been growing at a most rapid rate. Yet I believe with Miss Barrows that the apple especially might be used more as a substitute for potatoes and other vegetables, and that the use of the apple with meats should be more common than it is.

Among the various recipes which she gave for preparing apples for the table, I noticed particularly one under the head of "cereal with fruit." Many of us have got in the habit of eating some cereal for breakfast. Few people, however, are aware that these cereals can be made so much more palatable and healthful by blending them with some kind of fruit, especially the apple, but also with bananas, currants, plums, etc. Miss Barrows says the apple in many forms is attractive with cereal, and that perhaps there is nothing better than baked apple served in this way.

Another of her recipes is as follows: "The time of cooking varies according to the cereal to be used. Let it cook very rapidly for a few minutes. Then slice into the cereal some sections of apple and leave them to cook with the cereal over hot water or in a double boiler. The apples may be sliced and become a part of the cereal or they may simply be cut in sections and left in it. This kind of cereal preparation may often be turned into molds and served cold."

I am glad to see the early apples in full bloom again, Oldenburg, Astrakhan, etc., these varieties, especially at an earlier stage of maturity, make such excellent sauce. In fact, I can hardly imagine any-

thing more palatable and delicious than a dish of apple sauce made of half-ripe Oldenburgs eaten with genuine sweet cream, with or without the addition of cereals. But there are many other combinations of cereals and fruits that are delicious. The good housewife should experiment a little in this line, not only for the comfort and enjoyment, but also for the health of the family.

### Concrete for Farm Use

With the rapidly growing scarcity of wood has come the increased use of concrete for the construction of many things in city and country. For many years, for instance, we have had plank sidewalks in our town, often out of repair and at times entirely missing. For a while we tried to get along with cinder walks, which are often far more satisfactory than the more or less defective plank walks. Now, however, the fashion has entirely changed in favor of the cement walk. No new sidewalk is being constructed in this village save from concrete. It is the most satisfactory walk because practically indestructible if well laid, and therefore cheapest in the long run.

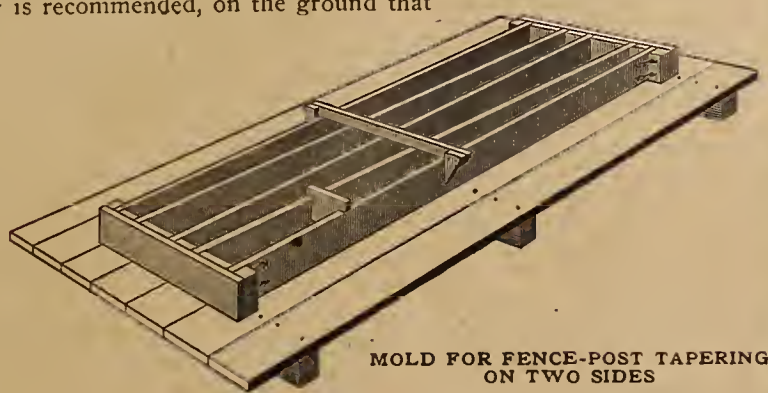
But there are many other purposes for which we can find use for concrete on the farm, besides making walks from house to barn, or from roadside to house, etc. It is used for cellar and stable and poultry-house floors, for stock watering-troughs and tanks, for lasting bridge abutments, and even for fence-posts. Farmers' Bulletin No. 235, issued by the Department of Agriculture, on "Cement Mortar and Concrete for Farm Uses," gives full information on this important subject, and I believe every farmer ought to have a copy.

#### CONCRETE FENCE-POSTS

"It is frequently stated," says the bulletin, "that a reinforced concrete post can be made and put into the ground for the same price as a wooden post. Of course, it will depend in any locality on the relative value of wood and the various materials which go to make up the concrete post, but, in the great majority of cases, wood will prove the cheaper material in regard to first cost. On the other hand, a concrete post will last indefinitely, its strength increasing with age, whereas the wooden post must be replaced at short intervals, probably making it more expensive in the long run.

For reinforcement, plain, smooth wire, twisted fence wire or rods are recommended. They should be bent over at the ends, or looped, in order to prevent slipping in the cement, and thus be embedded in the concrete near the surface.

The concrete for fence-posts is mixed in the proportions of one part Portland cement to two or two and one half parts clean, sharp sand, and five parts broken stone or gravel, the size of which should be under one half inch. In cases where the aggregate contains pieces smaller than one fourth inch, less sand may be used, and in some cases it may be omitted altogether. A mixture of medium consistency is recommended, on the ground that



MOLD FOR FENCE-POST TAPERING ON TWO SIDES

it fills the molds better, and with less tamping than if mixed quite dry. Tapering posts will be found most economical and of sufficient strength. They are easily molded in wooden molds.

A simple mold of this kind which has been used with satisfactory results in the department laboratory is here shown. It has a capacity of four posts, but larger molds could easily be made on the same principle. In construction, dressed lumber of at least one, and preferably one and one half inches in thickness should be used. Detailed description will hardly be needed. In the illustration, the post measures six by six inches at the bottom, six by three inches at the top, and seven feet in length, having two parallel sides. For the sake of attaching the wire to the posts, long staples or bent wires are imbedded in the concrete while soft, and the wire is attached in the manner shown. Galvanized metal must be used for fasteners, since they are not protected by the concrete.

*A. Greiner*

## Salient Farm Notes

### Balanced Rations for Poultry

A farmer's wife wants to know what I think of the "balanced rations for poultry" that are very much advertised. She has not had very good success with her fowls this year, and is thinking of adopting some of the "balanced foods" as a regular ration. The chief objection she has to them is their cost, which seems high.

If she uses the advertised mixed foods for poultry as a regular ration she will need to get high prices for the eggs or she will be doing a losing business. I have tried about everything in the way of grains, seeds, meats and meals for poultry food, and quite a number of the mixed and "balanced" rations sold on the market with varying success. And except for starting young chicks I have decided that these mixed foods are of no more value than such food as is grown on almost every farm, while they cost three to fifty times more. Some of them I would not accept as a gift, especially those said to contain "tonics," and drugs said to promote egg production. The less one feeds of these the better for his fowls. Chicks or fowls rarely require tonics or stimulants of any kind. I never use them except when by accident or oversight a valuable bird has been exposed to conditions that are likely to result in injury to the bird's health. I long ago decided that the best medicine for a really sick fowl is the hatchet. Sometimes a contagious disease starts in a flock and it is necessary to use some stimulant or antiseptic in the food or drink to counteract the disease and destroy the germs that have found lodgment. But with such stimulant or antiseptic, conditions surrounding the stock should be immediately changed so that they have everything that is favorable for quick and permanent recovery, and a prevention of the recurrence of the disease.

One of the best foods I ever tried for laying hens is wheat bran two parts, good middlings, one part, oats, one part, mixed together and dampened, not made wet, but just nicely damp. In winter I dampen it with hot water and allow it to stand until cool before feeding. In summer I dampen it with cold water. Besides this the birds receive a feed of corn on the ear once a day. When they are snowbound to the shed and house I throw some straw into the shed and scatter broken corn among it to induce them to exercise, merely to keep them busy enough to keep them out



of mischief. This broken corn is given in the morning, the mixture at noon, and a fair feed of corn, broken or on the ear at night. With this sort of treatment fifty-five hens laid an average of forty-one eggs a day from the latter part of last January to the middle of April, when some of them became broody.

Now that summer is on and hot weather we must be careful how we feed hens we wish to keep over. They should obtain most of their food on the range, or if penned, be supplied with lots of green stuff. About the middle of June I feed very little corn, and not much grain of any kind, and that only once a day, in the evening. By feeding lightly in summer they lose most of the fat from the inside of their bodies and go through the hot weather in fine shape. As cool weather comes on in the fall the heavier feeding may be resumed with profit. A liberal ration assists in the production of another coat of feathers and often they are laying by Thanksgiving. Then with proper food and care they will lay well all winter. I have noticed that one hen laying encourages others to do the same, so one should get a few hens or pullets to laying as early in the fall as possible.

### Free-Seed Distribution

The editors of quite a number of agricultural and horticultural papers have written many blazing editorials denouncing the congressional free-seed distribution, and declaring the people do not want it, and that it is an imposition on the seed trade, on the people who have advertising space to sell to seedsmen, and on the public who do not plant seeds, but have to help pay for these. As to whether the people want these free seeds or not—I mean the people who plant gardens, I am not quite so sure as some of the editors aforesaid. But this I do know: That some people get mighty wrathful if their congressman happens to omit them when he is passing the seeds around. I have seen men who possess one to five thousand dollars' worth of property stamping about and swearing like troopers because the man they had helped into Congress with their votes had failed to send them their quota of free seeds.

One farmer's wife told me early in the spring that she had not bought any seeds because she was waiting to see what their congressman sent them before doing so. And she expressed the hope that he would be liberal with them, because Congressman Blank always was. In fact, she declared that if he did not send them a good lot she would see that her husband did not vote for him again. She said: "I believe in helping them as helps us. If he sends us a nice bunch of seeds he gets our help. If he don't he loses one good vote, sure!" She and her husband own property worth six or seven thousand dollars.

A congressman once asked me to send him the names of a few good party people whom I thought would appreciate a few seeds. I sent him the names of a number of persons who were in very moderate circumstances, omitting those who were well able to buy seeds, and I soon discovered I had made a bad mess of it. The fact that I had sent in the names of those who received seeds got out some way, and I was roundly berated by many of the omitted gentlemen. The editor who thinks he knows more than the average congressman about the usefulness of free seeds is away off.

### Trusts at Home

One day last winter a merchant in a small town expressed to me his opinion of certain Chicago mail-order merchants. He rehearsed all the old abuse found in trade journals, adding to it such vituperation as he thought necessary. "We buy these people's eggs and butter," he said, referring to those who traded with the mail-order houses, "and give them good goods for them, then when they have some cash to spend they send it out of town to those fellows for poor goods and the money does nobody in this town any good. Those mail-order houses ought to be suppressed!" Less than a week afterward I was talking with a merchant in another store, and in came the one who was giving it to people for buying where they could buy cheapest, and the two proceeded to fix the price of eggs and butter for the day. The latter said it was necessary to do this to secure a fair distribution of patronage and prevent unnecessary competition. What they said should be the price for the day was the price in every store in town. The merchant I was talking with said: "We do this every morning and it prevents people from withdrawing their trade from one house and giving it to another because they can get half a cent or so more for their eggs or butter. When the roads are bad we put prices up a little to draw in needed supplies, but on Saturdays, when we are sure to get in a whole lot, we cut a little, so our profits really run about even all the time." I asked him if he called it a trust or a syndicate, and he said it was neither. "We call it an association," said he. "That sounds better, and it is a good thing!"

The Lumber Trust calls itself an "association," but it regulates prices and output just the same as a real trust. I note that the Bosses held a meeting recently and raised prices another notch, and the one who looks after legislation stated that the tariff on lumber would not be meddled with by the present Congress, he had plenty of assurances on that point. He said they had nothing to fear from any tariff changes on Canadian lumber for some time to come. About midsummer they will hold another meeting and give prices another boost. I note that quite a number of people are using concrete blocks for building outhouses and stock-sheds, making the roof only of lumber. Such buildings are permanent. If the roof is well painted occasionally there is no reason why they should not last a hundred years and more. Such buildings cost a little more than if made of lumber, but they are well worth it.

*Fred Grundy*



## Rape

**R**APE is native to northern Europe and Asia. It has been grown in the United States only in recent years. Almost the entire crop has been of the well-developed variety, Dwarf Essex.

Except in size and shape rape leaves very much resemble cabbage leaves. The rape plant does not terminate in a head, but the plant grows to a maximum height of four feet. No pests have been observed doing damage to rape, as the larvæ of the cabbage butterfly do to the cabbage crop.

The rape cultivated in the United States is biennial, though seed has not been produced here in a commercial way. An annual variety called summer rape is cultivated in England; it is useless for forage, but yields seed comparatively rich in oil. The seed of this variety is sold for bird feed and is sometimes called "bird rape."

Rape makes the best growth in a cool, moist season, for the reason that these are the conditions prevailing in its original habitat. It has, however, made comparatively good growth in many cases even during dry seasons. In this much depends upon the original nature and preparation of the soil; and upon the cultivation, if any.

As to the time of sowing, that may be any time from May until August. Rape has been grown on a variety of soils in the United States. It succeeds worst on stiff clay and best on a loam soil. It is a gross feeder, consequently especially requires the presence of ample vegetable matter and available plant food in the soil. Being a rapid grower and carrying a relatively high content of water, it requires a constant supply of moisture during the whole season. It is oftenest used as an emergency crop, and utilized in supplementing an unwonted small acreage of grass land, or in carrying stock over the dry season of late summer.

But many swine breeders arrange to have a succession of rape in small lots during the entire season, especially after the first rank growth of clover has been utilized. Rape has reached its place of popularity in the Central States largely as a hog pasture. Best results are attained by supplementing with some grain. It has been utilized with equal success for hogs of all ages. The nutrient content of clover compared to rape, pound for pound, is much higher; for this reason rape should not be regarded as a thorough substitute for clover. It is well if the hogs can be given the run of both at the same time. Rape is not a balanced ration, and the high content of water renders it necessary for the animal to eat it in too large quantities unless balanced by some concentrate.

It is regarded with equal favor by sheep breeders. It is well adapted for lambs after weaning. At the weaning season grass is usually short, and even though the season has been dry and the rape plants small they often prove a profitable supply. For breeding ewes, just previous to turning in the ram, rape is especially opportune. It is laxative and fattening, thus causing the ewe to take on flesh rapidly at that time, a condition very conducive to a high percentage of strong lambs and of twins.

For cattle, rape has been little used. They are more liable to bloat; besides, if turned into the field of rape they destroy many plants by pulling up and tramping. When used for cattle feeding it has usually been cut and hauled to the barn. By cutting high the plant can be preserved, and at the same time the amount of feed may be regulated, and the time. In feeding to dairy cows great care must be practiced to prevent tainting of the milk. Green fodder corn is superior for cattle.

Rape has been employed as a catch crop, or cover crop. The fact of its winter killing is the principal defect observed in using rape in this capacity.

Our first personal experience with rape culture was in the season of 1895. About June 25, after taking off a clover crop, the ground was plowed and put into good condition with a spike-tooth harrow. The seed was sown broadcast about July 1st. We have never since raised a more uniform crop, very likely because we have never since plowed down a clover sod for the crop, nor even plowed the ground at all. These plants averaged fully two feet in height; the field was used for sheep pasture till early winter.

We have twice sown rape on oats stubble well disked and harrowed; each time the fields were "patchy" and the growth quite ordinary. Both these seasons were exceptionally dry, and for this reason the forage, though meager, was the more appreciated.

Rape sown in corn at last cultivation has proved more successful. Sown on our best black loam soil, rape in corn has made fine growth. Lambs did very little damage to the corn shocks, besides we make it a point to get such corn hiked out early.

On a small scale rape sown together

with oats indicates the practice that will likely be looked upon with favor in the future. The experience of others in this line has also come under the observation of the writer. The oats make the more rapid start, thus keeping the rape plants small until the oats are harvested; then the rape is ready to make a quick growth. In our case the plants were very fine; the rape was much finer, and earlier by half than if sown after oats harvest; besides the labor is reduced to a minimum. Possibly the better practice would be to sow the rape seed broadcast and harrow in about a week after the oats have been sown; if sown with the oats the rape has an equal chance, and may get too large before oats harvest.

The drilling of rape seed in rows from twenty-eight inches to thirty-two inches apart has some advantage, though we have never drilled any. In case the season be dry, cultivation conserves moisture and relieves the packed, crusted condition of the soil. Animals feeding on rape sown thus follow the spaces between the rows and consequently destroy fewer plants by tramping. When the rape has been cropped off closely all stock should be turned out, so as to allow the plants a fresh start; new buds are formed and a succession of forage may be had.

As to quantity of seed, we have always sown from three to five pounds per acre, according to nature of the soil; this is a maximum. From three to four pounds is considered ample for broadcasting, and a pound less if drilled.

Sheep and cattle are liable to bloat on rape. We have had experience with sheep and hogs only, but never had any bloating. We have always allowed the stock other pasture at the same time. When first beginning the pasture of rape, never turn in hungry animals. Always turn in after noon first, but never when the forage is wet. Some animals take to the forage readily at first, others require some time to become accustomed to it.

With us rape is not a staple crop; we make it an emergency forage. Having plenty of other pasture the past season, we sowed no rape at all. It is well for the beginner to inform himself beforehand concerning its adaptability to his demands, then to experiment with it on a small scale at first.

"Rape as a Forage Crop" is the subject of "Farmers' Bulletin No. 164," which may be had free of charge by any one who addresses the Secretary of Agriculture, Washington, D. C., and requests the same. GEO. P. WILLIAMS.

## To Kill Cabbage-Worms

I take flour and salt, equal portions, mix well, and sift it into the center of the plant with a dredging-box or baking-powder can with holes punched in the cover.

The flour is used to make the salt stick to the plant. Of course, if the rain washes it off, another application will have to be made.

New York.

P. INGALLS.

## When to Cut Oats

The feeding value of oat straw, when cut at the right time and well cured, is not appreciated by many farmers. When properly harvested, it contains a larger per cent of protein than any other straw, and on this account is a very valuable feed for milk cows, as well as for calves and colts. It is also an excellent fodder feed for work horses in winter-time, because more laxative than timothy or clover hay.

The best time to cut oats is just after the heads have turned yellow, and the stalk and leaves are still green. There need be no fear of the kernel shrinking when cut at this stage, for the grain is then practically matured, and, if left standing, nothing will be added to the yield. Even if cut a little green, while the stalk is yet full of sap, if the bundles are not made too large, and the shocking is well done, no harm will follow, as the sap remaining in the stalk will be largely absorbed by the kernel in the curing process. In the Northwest, where the altitude is high, and the air generally dry, there is but little danger of the oats spoiling, or molding in the shock. A much larger part of the crop is usually damaged and lost on account of being allowed to stand too long before cutting. In many cases where rain interferes with the harvesting, as it often does, the grain becomes so badly lodged that it is almost, if not entirely lost.

It is therefore better to take the chances

on cutting some of the oats a little green rather than cutting a large part of the crop when too ripe. Oats cut in season, which are well cured, and properly cared for, can be fed in the sheaf to great advantage, or, better still, chopped up in a cutting box and mixed with bran or ground feed of some kind.

By feeding in the sheaf, the cost of threshing is saved, an important item. It is almost a substitute for grass, and is one of the best feeds known to produce bone and muscle.

Illinois.

ROBERT LASHER.

## Stopping Washes

If there be any washes in the field that has been plowed for corn at the time of harrowing, or even any that occur by action of heavy rains after the corn is up, take a liberal amount of broom-corn seed and sow and cover the best that can be done in the washes. A greater part will come up before it is again washed out, and the roots growing in the gutters will serve to hold the soil until a permanent stop of wash can be secured.

In plowing or cultivating the corn, some of the broom-corn will be trampled down, but there will be enough left, after the corn is laid by, to supply any ordinary farmer with enough of the corn for brooms for his use during the year.

At the time of cutting the corn the longest of the stalks can be used in tying the corn shocks, but the larger number can be harrowed down in the gutters at the time of wheat sowing. With their roots fast in the soil and a little grass seed, manure and wheat put in the gutters, the chances are that the washes will be stopped.

At the time of corn cutting and before the stalks are cut and used for tying corn fodder, the tops with seed can be cut off and laid away for future use.

The same plan can be used in other fields that are not being farmed by simply scattering the seed and letting nature do the rest.

Ohio.

L. S.

## To Kill Horseradish

I cut the root off a few inches below the surface, throw on wood-ashes, and cover them with earth. I seldom need to make a second application.

Nebraska.

M. J. BELLER.

## Keep Bees

It seems to me that more farmers could keep some bees and thereby secure honey for their own table. It is not necessary to watch them during swarming time. I have glass over my hives in under the cover. In swarming time, when I come from the field at noon, and I think that any of them have swarmed, I just take off the cover and look at them. You can tell at a glance if any of them have swarmed or not. If they have, you will find them near by on some low tree or brush, if a prime swarm; if an after-swarm, they may alight quite high.

After I have found the swarm, I hive it and place it on the old stand and put the old hive on a new stand. This makes the swarm stronger and it gathers more honey.

Several days after they have swarmed I go to the old hive and cut out all queen-cells but one, which prevents any after-swarms.

After the first super is full I put an empty one under it, and they work very hard to fill this space.

Iowa.

LEONARD GRAPER.

## The Buckwheat Crop

Buckwheat is a crop that is not extensively grown in the United States, and yet where the crop can be successfully grown it gives as good if not better returns for labor bestowed than wheat, oats and other crops that are more extensively grown. Buckwheat, in order to succeed, need not have a very fertile soil, but there must be a sufficient quantity of available fertility to grow the crop, since it grows and matures a crop in a very short season. It is usually profitable to apply a moderate dressing of fertilizer. Buckwheat, in order to give best results, must have a rather cool season in which to mature the grain, and as it usually matures in about sixty days from time of sowing, it may be sown as late as the middle of July and sometimes the first of August, and still mature seed before frost. The soil should be prepared some time before it is decided to sow the crop, so that it will have time to settle. The seed may be put in with a grain drill three fourths to one bushel to the acre, with 150 pounds of superphos-

phate per acre. If grass or clover is desired it may be seeded with the crop, since buckwheat is a good crop to get a stand of grass and clover with. I have never failed to get a stand of grass and clover with buckwheat, and I have tried it often. When the buckwheat is ripe it may be cut and set up in the field in small bunches without tying until it dries, then it should be drawn direct from the field to the thresher. Buckwheat shatters so badly that it is not best to undertake to store it away before threshing, but it may stand in the field several weeks without much injury. When threshing on a machine the power must be reduced, and all or nearly all of the concave be slipped out and smooth boards put in its place to prevent the machine cutting the grains. From fifteen to thirty bushels of clean grain is not an unusual yield of grain per acre. Grain should weigh fifty pounds per measured bushel, and is ready sale at good prices, or if it is not desired to sell the crop it makes good stock feed when ground. The grain usually sells at about the same price per bushel as corn here. As a stock feed it has a nutritive ratio of one to seven, while corn has a ratio of one to nine or ten. The varieties usually grown are Japanese and Silver Hull buckwheat. The Japanese variety has had a better reputation than the Silver Hull, but my limited experience with the Silver Hull seems to indicate that it is a better variety for this locality than the Japanese. The Silver Hull grows taller than the Japanese, and the grain is several pounds heavier per bushel.

A. J. LEGG.

## Protection Against Crows

I have tried several things advised to keep crows from pecking watermelons, but only one proved successful. Draw a twine string around the edge of the patch. Crows are not apt to alight, as they are very suspicious of traps. If the patch is very large, it is well to draw a string across the middle. I have used this scheme successfully for the last ten years.

North Carolina.

R. F. L.

## Clod-Crusher

I was pleased to see my clod-crusher and land-leveler in FARM AND FIRESIDE. But there is one important part I failed to properly describe, and that is the "riding plank." It should be put on with a single bolt, and the end rounded, so in turning it will not become "jacked," and thereby broken off.

There are other uses I put this contrivance to. One is to thrash cotton-stalks, which it will do effectually if the stalks are at all brittle. Another is to knock down, pull up and clean the dirt off of corn-stalks, putting them in good shape for the hay-rake.

Louisiana.

O. M. DONEY.

## Clover for Seed

As clover-seed brings an exceedingly high price, it will pay the farmer to save the second crop for the seed.

The first crop of clover should be harvested as early as possible, so that the second crop may have time to mature before the droughty fall weather comes on. The first crop should be cut before the bloom turns dark, but time should be given for the seed to form and ripen in the second crop. It is best to harvest the seed clover before it becomes dead ripe, so the seed will not shatter.

Missouri.

W. D. NEALE.

## Cutting the Roadside Weeds

Farmers are bothered with the obnoxious weeds that thrive along the public highway. Those who take pride in keeping up the appearance of their farms trim the roadsides twice a year. There are others who do not trim their portion until it gets so bad that they are forced to.

Modern mowers are so provided with levers that both concave and convex surfaces may be nicely trimmed if correct driving is done. The cutter-bar can be set high so as to pass over the stones lying loose along the side of the road, and if a higher cutter-bar is needed it can be instantly raised with the foot or hand lever.

In cutting the weeds along the highway with my mower, I take the reins in one hand and the lever for raising or lowering the cutter-bar in the other. If my team is good, I give most all my attention to the cutter-bar, raising and lowering to suit the lay of the land. In this way I cut over nearly all the roadside, smooth or rough, steep or flat, in a few minutes. Of course, the bushes, stumps and large stones should be removed, and once cleared, the mower attends to the balance. Now it is an easy matter to cut the weeds and have a neat, trim roadside through your farm, and it is everyone's duty to trim his part of the road. Then, too, these weedy roadsides are a source of infection to the surrounding land.

Kentucky.

E. W. JONES.



### How to Build a Cement Silo

ITS rapid development silo building has reached the stage of reinforced concrete. In a recent issue of "Hoard's Dairyman," Mr. C. J. W. Jones, of Missouri, tells how he built his cement silo, as follows:

My silo is sixteen feet in diameter, inside measurement, eight feet in the ground and thirty-two above. Underground, the wall is eight inches thick; above ground, six inches. Wire rope, made of four strands of No. 12 smooth wire, was embedded in the wall every eighteen inches. Each of these ropes goes around the silo near the outer edge. The door frames were made one foot eight inches wide by two feet in height, of two-by-six-inch stuff, and set in as the wall went up.

The excavation was dug seventeen feet four inches in diameter, perfectly round, and the bank cut smooth and perpendicular, and the bottom made level. From the exact center of the excavation, a circle was drawn sixteen feet in diameter, which left just eight inches between it and the bank all around. On the inside, close up to this circle, two-by-four studding, two feet apart, were perpendicularly placed, and braced to a studding set perpendicularly in the exact center of the silo. One-inch boards six inches wide were used to brace each studding, both at the top and bottom, to the center studding. On the outside of this circle of studding, next the bank, one-half-inch boards, six inches wide, were nailed with small shingle nails. These could be easily bent to the form of the circle. I used a spirit level to get them at a true level on the ground. When this was boarded up solid for about two feet, the building of the wall began, and as needed, more siding was nailed on, the bank being the outside form until the surface of the ground was reached. My studdings were twelve feet long. When the top of these were reached, other studdings were spiked on, lapped one foot and braced to a center studding as before. When the top of the second course was reached, the lower studdings were pried off, and they and the half-inch stuff used again above. The center studding should not be taken out.

When the top of the excavation was reached two sheet-iron forms were used, made of No. 20 galvanized iron, each eighteen inches wide and about fifty-five feet long, so as to reach quite around the silo. On the ends of these forms, angle-irons were fastened; one iron being set about one foot from the end to allow for that much lap. Two five-eighths-by-eight-inch bolts, with long thread cut on one end, go through the angle-irons by means of which the form was tightened. To keep these sheet-iron forms just six inches from the inner form all the way around, pieces of two-by-six inch studding one foot long were placed every two feet inside the sheet-iron form and just opposite the studding of the inside form. These pieces were slipped up as the form was filled. When the first form was filled, the other was placed on top, and likewise when it was

full, the one beneath was loosed and put on top. The cement will set fast enough to allow of the filling of two forms a day. Three or four lifts made of strap-iron, with a handhold turned on one end and the other end bent to a right angle for one half inch, were convenient for lifting the forms. Great care should be taken to start the forms level; a good, true spirit level should be used.

Portland cement, clean sand and broken limestone were the ingredients of the concrete. The sand and cement were mixed dry in the proportion of one of cement to two and one half of sand for the lower one third of the silo, and one of cement to three of sand for the rest of the way. Two mortar boxes were used so that while the mortar was being taken from one, the mixing was proceeding in the other. The mortar was mixed rather thin and poured into the forms to the depth of three or four inches and at once all the broken rock tamped in that the mortar would hold, care being taken that all the rock spaces were filled. When the work was interrupted so that the cement would be likely to set before building could be resumed, the upper surface was left rough with partly exposed rock so that when the next cement was poured in, it would adhere firmly.

The broken rocks were thoroughly wet before being put in the wall. Bolts one half by six were embedded in the top of the wall all the way around and standing out two and one half inches in order to fasten the roof-plate. When the wall was completed the inside was made smooth with a coat of cement, as a cistern is finished. The mortar should be made one part of cement to two parts of fine, well-sifted sand.

The amount of material used and the cost was as follows:

54 barrels of cement at \$1.60.....	\$86.40
23 cubic yards of sand.....	25.00
200 lbs. of wire.....	2.00
2 doz. bolts.....	1.00
100 ft. of lumber for frames & doors	2.00
2 galvanized sheet-iron forms....	18.00

Total..... \$134.40

The lumber used for staging and for inside form was used for other purposes. The roof has not yet been put on, and although we have had an excessively wet fall and winter, the silage has kept beautifully. With the material all on the ground four men could build the silo in about 14 days. I built this silo entirely with unskilled labor, such as is usually employed on farms. I had had no previous experience in concrete construction, and had never seen a silo in my life. So I feel justified in saying that I believe a concrete silo built as described is the easiest form of silo for the inexperienced and unskilled to build, and I am confident, when we consider how perfectly it preserves its contents, and how, for all time, it will stand with little repair, it is by far the most economical.

## Review of the Farm Press

one coming in May, one in June and the third about tasseling-time. It is rare indeed that corn suffers from dry weather until tasseling-time. In fact, it has become a maxim among farmers that a dry June insures a good crop.

### The Spencer Seedless Apple

The "Rural New Yorker" gives the following statement by a Colorado man of wide observation and sound judgment, who is recognized as one of the best authorities in that state:

I have known this fruit at Grand Junction for the past ten years at least. Quite a large proportion of the apples are entirely seedless, though occasionally apples occur with one or two, or even more, seeds. The hull that contains the seeds is present in all the apples, whether they have any of the seeds or not. I am of the opinion that the hulls are not very firm in those apples that have no seed. I have eaten of the apples, and consider them no better than (in fact, I should consider them rather inferior to) the Ben Davis as an apple to eat out of the hand. The color is not much different from that of a rather highly colored Jonathon (Ralls), and it is an apple of about the same size. I should not consider the fruit of any special value from a commercial standpoint, but simply as a novelty. One who is interested in having all the curious fruits growing might like to have one or two of these trees as a sort of curiosity. I believe I am quite correct in not thinking the apple is one that will ever be of commercial importance. The claims that the apple is not attacked by the codling-moth are entirely without founda-

the patriotic American afford to trade his birthright for a mess of pottage? The farmer should know that when it becomes possible for him to employ the cheap 'Jap' or 'Chink' laborer, that it will mean keener competition, for others will have the same advantage.

"In many of the lumber mills on the coast, Japanese labor is supplanting white labor. Chinese are employed almost exclusively in fish canneries, market gardens and vineyards, and both may be seen in droves, with a white man for an overseer, working on the railroad sections. Many dwellings that were formerly occupied by laborers' families now stand vacant, their occupants having been forced out of employment by the Orientals, and obliged to seek employment or charity elsewhere. The merchants also note the intrusion, in the way of diminished trade.

"When the Japs or Chinese get a foothold, they soon begin operations for themselves. About all the capital required is the lease of a piece of land, a rake and a hoe, and a few garden seeds. They almost have a monopoly of the market gardening on the Pacific Coast. No white man on earth can compete with them and support a family, for they can live on what a white man would starve to death on. Their clothing is principally blue denim, and their other expenses are in keeping. A half dozen or more of them will live in a hovel hardly good enough for a chicken-coop. They do not contribute to society, churches, schools or charity, but hoard their money with the expectation of some day returning to their native land. Therefore, in the interests of freedom and posterity, let there be no modification of the Chinese Exclusion Act.

"Yours for the American home,

"W. I. D."

### The Department of Agriculture

[CONTINUED FROM PAGE 1]

prohibiting countries. This action led to the removal of the prohibitions, but the restoration of the lost trade was a slow and difficult process.

Notwithstanding such adverse conditions, the trade with these countries has continued to grow, until now it requires more meat than the bureau is able to inspect.

A number of years ago extensive experiments were conducted with the blue-gum tree of Australia (*eucalyptus globulus*) to determine whether it possessed the anti-periodic properties attributed to it. The seeds were procured from an Australian correspondent and were sown during the following spring. After three years the plants reached a height of twenty to twenty-five feet, and several of them were cut down and submitted to chemical tests to determine whether they contained an alkaloid similar to the cinchona. The experiments failed to reveal any alkaloids of this character, but the febrifugal nature of the leaves seemed to be well established. Upon its anti-malarial reputation being thor-

oughly demonstrated in Australia, the demand for young trees became so great in the United States that the departments propagated and distributed many thousands of the plants. Their hardiness has been well tested here. It was found that they were destroyed when the temperature fell to twenty-four degrees Fahrenheit, and the climatic range proved to be more limited than was hoped for at the start. It was destroyed by cold at Galveston, Texas, and in Florida as far as latitude twenty-nine degrees, but in California it is successfully grown and is largely planted in certain parts of the state.

The few facts stated here, gathered from the reports of the various divisions of the department, show in a meager way the work that has been done and the ends it has in view. Millions of bulletins containing the results of years of experiments have been constantly dropping into the hands of people carrying with them exact information that could not possibly be obtained in any other way. The result has been to awaken everywhere the perceptions of the people and to create a constantly increasing demand for knowledge and further instruction along these lines.



ARTIFICIAL LAKE ON A SOUTH DAKOTA FARM

### Cultivation of Corn

"Wallace's Farmer" gives some good points on the cultivation of corn, as follows:

In a dry season the one important thing is the conservation of moisture, which is best accomplished by maintaining a mulch of loose dirt from an inch to two inches deep, according to circumstances. The moisture cannot, so to speak, climb out of the soil if the particles of soil on the surface are kept so far apart that the films of moisture cannot reach from one to the other; in other words, if the top layer cannot borrow from the one below.

If there is good capillary connection between the furrow slice and the subsoil, moisture will not be wanting even in a very dry year. Farmers will be complaining in many sections of the country that we are in need of rain. Possibly there will be, where the seed-bed has not been properly prepared, and where the soil is deficient in vegetable matter. The best crop of corn we ever grew, eighty-seven bushels to the acre, was grown with but three rains during the entire season. These, however, were timely,

tion. I have been told several times that it is the worst of all apples for the codling moth, as the calyx is very deep, and the worms are able to enter without being likely to get a poisonous dose, even if the trees are sprayed.

### Oriental for Farm-Hands

As a solution of the farm-labor problem it has been seriously proposed to have our federal laws changed to permit the importation of Chinese laborers. In a discussion of this subject the "Farm Journal" prints the following:

One of our South Dakota folks writes: "During my eighteen years' residence on the Pacific Coast, where Chinese and Japanese are more numerous than in any other part of the United States, I became familiar with some of their characteristics, and feel that it is my duty as an American citizen to do what I can to avert the calamity which an 'open-door' policy would bring upon the American laboring man and the small farmer. It is the same old story—trying to get something for nothing. The Orientals would doubtless make cheap farm labor; but can



### All is Expectation

IN A BOOK just published by Charles Scribner's Sons, giving a biography of the noted actor, Thomas Jefferson, the author, Mr. Wilson, quotes Mr. Jefferson as follows: "The saddest thing in old age is the absence of expectation, and you often get a lot you don't expect. Therefore I have become a gardener. My boy, when you have passed seventy, don't forget to cultivate a garden. It is all expectation, dear man."

Mr. Jefferson is right. The real enjoyment in life is in expectation. And when we plant our gardens, with many old things in new ways, and many new things in old ways, we have something to look forward to with great pleasures of anticipation. And while we may get a lot of things we don't expect, there are a good many more, perhaps, that we expect and don't get. I get wrapped up in my garden work all the more the older I grow.

### Money Crops

I am frequently asked by readers what crops they should plant to make the most money from a given piece of land. Such a question cannot be answered in a general way. In fact, it is a local question, the selection of the crop or crops depending largely on market conditions, as also on the adaptability of soil and location, and last, but not least, on the grower himself and his notions, tastes and experiences. For this locality, for instance, a whole list of crops might be given that are eminently remunerative; among them strawberries, raspberries, blackberries, currants, gooseberries; then asparagus, rhubarb, all sorts of onions, lettuce, radishes, beets, early potatoes, early peas, string-beans, lima beans, pickles, eggplant, peppers, tomatoes, melons, turnips, sweet corn, etc. In fact, there is hardly any product of the garden but what is salable at fair prices in this great manufacturing center.

A person having two or more acres of land suitable to grow a good crop of strawberries, who will plant suitable varieties and take care of them until sold, has a good chance to get returns enough for a modest living. So has the man who plants a few acres of red raspberries, or of asparagus, or a combination of some garden crops like early cabbage, early peas, lettuce, radishes, beets and many others. Every grower, however, should select the crops for money according to his own judgment and notions. I have to grow everything, whether it pays or not. If money were my only object I would probably confine myself to three or four things (and possibly only two), with the chances in favor of asparagus and strawberries.

### Growing Asparagus

With the prices that are again ruling in our near markets for asparagus, however indifferent in quality, but especially for fancy grades, an acre well taken care of should be good for at least \$500 and upward a year. The supply here seems to become more limited from year to year, and prices are soaring. Many people in the city and town who would gladly buy it go without simply because they cannot get it. Why is this shortage not looked after and supplied? There is no particular difficulty connected with the production of asparagus, and the money for it comes in quite early in the season, in April, May and early June. You can buy strong one-year plants from any plantsman or seedsman at \$4 to \$6 per thousand, or you can grow them yourself if you do not care about a year's delay, or if you are particular about the variety, although in my opinion there is not much difference between our leading sorts so far as productiveness and market value is concerned.

Palmetto is claimed to be less subject to the rust than the other sorts. The plant is so rugged that you can hardly kill it by misuse. Several years ago I bought a quantity of asparagus roots. I had more than I had use for at the time, and stored the balance in a crate in the barn, where they remained until the spring following. On examination I found most of them still alive.

In order to raise a satisfactory crop, however, the soil on which they are to be planted must be well drained, warm, and rich, containing a fair proportion of humus, and each plant must be given sufficient room. We usually plant in deep furrows which are five feet apart, and set the plants two feet in the rows. The finest crops of stalks I ever saw were grown on a southeastern slope, and sandy loam of only moderate fertility.

Don't expect asparagus to do its best on strong, cold and half-drained clay loam, but sandy or gravelly soils with good natural drainage are all right, especially if made rich by generous applications of composts or yard manures, and deeply plowed and worked. A patch once well started in asparagus is good for satisfactory and usually paying crops year after year for a long series of years.

## Gardening

### Poisoning the Potato-Beetle

Several readers ask how best to dispose of the "potato-bug." It seems that this subject has been gone over so often and so thoroughly that hardly anything remains to be said. I fight insects and disease at the same time by spraying with Bordeaux mixture, to which arsenate of lead, at the rate of a pound or more to the barrel of mixture has been added, and find this the most satisfactory way.

But there are many other ways of checking the potato-beetle's work. One is by hand picking. This may be satisfactory in the garden in a small way, but it requires constant watchfulness and prompt action. The hard-shell beetles must be gathered, possibly several times a day, just as soon as they make their appearance in spring, and promptly enough to prevent their wholesale deposition of eggs. The egg clusters must also be gathered and destroyed. But in spite of every effort some eggs will be laid and some will hatch, and some of the slugs will live to do damage. If you escape this enemy there will be the flea-beetle, and perhaps the old-fashioned potato-bug or blister-beetle, and finally the blight, etc., and in the end you may wish that you had relied on spraying rather than on hand picking.

Paris green is also a reasonably sure and safe poison for the potato-beetle and its family, and has some virtues of its own as a preventive of blight. If you do not use Bordeaux mixture probably paris green is the best thing to use, either in mixture with plaster, lime or flour, to be dusted on the vines, or in water to be sprinkled or sprayed on. If to be used in water, better add a small quantity of lime, even if no more than a pound of freshly slaked lime to the barrel of water. A pound of paris green will be enough to mix in a barrel of plaster or water. But make the application thorough enough so that every part of the foliage is covered. For treating potatoes on a moderate scale, say up to two acres, I prefer a good knapsack sprayer to any other spraying device.

### Arsenate of Lead

Where to get arsenate of lead? You can buy it ready made in the drug-store. It is offered under the trade name of "Disparene," and also under its proper name. You can also make it by dissolving eleven ounces of acetate of lead and four ounces of arsenate of soda (ingredients which can be purchased at the druggist's) in water. In my estimation arsenate of lead is by far the most satisfactory, because surest and safest, of all poisons to use for the yellow-striped cucumber-beetle. It can safely be used in such strength, say a pound in ten to fifteen gallons of water, that it is sure to kill every beetle as soon as it takes a bite out of the protected foliage. A few days ago, while in a Buffalo seed-store, I saw the arsenate-of-lead paste put up ready for delivery to customers in common pint and quart glass cans.

### Newer Strawberries

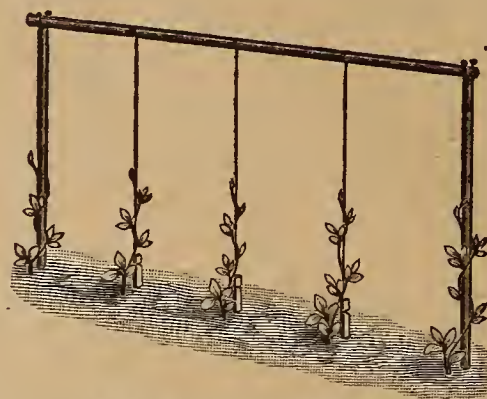
With the strawberry crop looming up again as one of particular promise as a money crop, we naturally wish to keep in touch with the progress, if any, made in varieties. The New York Experiment Station has just sent out a bulletin (No. 276), "Varieties of Strawberries and Cultural Directions." It is stated that many varieties under test failed to make a good showing, and the experimenter, Prof. O. M. Taylor, calls attention to the fact that varieties of all fruits, and especially strawberries, give widely varying results in different locations and under different conditions.

The truth of this statement can hardly be questioned. I, like others, had to learn that we must pick out our varieties for ourselves, according to their adaptability to the local conditions which we offer them. I find the Brandywine one of the best for me, while this sort does not seem to do well in some of the great strawberry sections of the state.

The bulletin speaks well of the Rough Rider, which I here have found next to worthless. It says the autumn-fruiting Pan American produces very few runners, but the individual plants are very productive. The few plants I had, at a dollar a plant, produced not a single runner, and only a very few scattering berries of inferior size and quality in the regular strawberry season, and not more than that in the fall, so that I gave these costly and worthless things up. They may do something in other locations or in other soils.

I have tried a number of extra-early varieties to take the place of Mitchell's Early, which is surely very early but not satisfactory in yield or quality. Among them I had the Van Deman; plants obtained from the Ontario experiment farm. None of these very early sorts proved here of any account, and so I have to retain Mitchell's Early so as to be sure of having what strawberries I want to use for a week or two ahead of the regular strawberry season. Fairfield, however, should be classed among the berries worth testing. It is very early, and here a fairly good plant-maker, although not classed as such by Professor Taylor. The fruit is produced in moderate quantity, and is fairly good. His verdict is, "One of the earliest to ripen. Although undesirable in quality, it may have some value where earliness is the prime requisite."

The bulletin names Weston No. 1 as a promising early berry. It is said to be a free producer of runners. Fruit medium to large, holding its size well throughout the season, rather light scarlet. Flesh rather light at center, moderately soft, mild, fair to good in quality. For a very late berry I know of nothing better for this locality than Gandy, which is here quite productive and a good plant-maker.



SUPPORT FOR POLE-BEANS

I have repeatedly spoken of the waste of plants and labor in setting varieties known as prolific plant-makers, as close as a foot apart in the rows.

I quote the following from the bulletin: "The distance apart in the rows and of the plants in the row varies somewhat with the natural richness of the soil, and considerably with the ability of the varieties grown to make runners. Varieties producing the largest number of plants may be set as far apart as four by two and one half or three feet, while those producing but few plants may be set three feet by eighteen inches or even closer, an average distance being three by two feet for most varieties." Mitchell's Early is probably the most prolific plant-maker in our list of ordinary sorts. I usually set it four feet apart in the row, and then have more plants in the fall than I want. On the whole, I have to say that it pays almost anyone to plant some strawberries if the land is available and suitable, and to take good care of the crop during the entire season, which means to cultivate and hoe as often as may be needed to keep the patch free from weeds.

### Literature on Lettuce

A reader in Maryland wants some treatise on lettuce culture. The only thing in that line I know of is a very elaborate and complete bulletin on lettuce varieties, a copy of which can probably be secured by applying to the Secretary of Agriculture, in Washington, D. C. I believe it was issued by the department for free distribution. In regard to culture, however, the reader will have to look up what can be found in the standard works on gardening. There is no special treatise on lettuce culture that I know of.

### Greens for Poultry

During the open season we do not usually have to make any particular efforts to furnish the needed supply of green stuff to our fowls. In as complete a garden as I always try to maintain, there is always some waste that can be made use of for fowls in confinement, especially old lettuce plants, cabbage waste, spinach too old for table use, beets and beet tops, lawn clippings, but especially alfalfa freshly cut if it can be had, etc.

In other instances, however, especially where poultry is kept in larger numbers, or the garden of limited extent, it may be well to plant some crop especially for fowls. A correspondent in "Agriculturist" suggests Swiss chard for this purpose.

"For sowing in poultry-yards," he says, "it is unsurpassed, because in six weeks it is fit for the fowls to forage on, and with a little watching to prevent its being eaten too close, it will continue to produce all season. Its mild flavor also commends it more than cabbage, rape or other strong-flavored foods. When thrown to the fowls with these or other greens it is always the first to be eaten."

I will add that Swiss chard makes also some very good greens for the table, and altogether is an interesting and, in many of its forms, a very ornamental plant.

### Best Fertilizer

Prof. J. L. Stone, of Cornell University, says in "American Agriculturist" that "It is not possible to state that a fertilizer of a proper kind is certain of producing best results with any particular crop or on any particular soil. This definite information can only be secured by experimentation with the particular crop on the particular soil."

"Certain broad principles, however, may be applied when the character of the crop and the nature of the soil with its recent treatment are known. For instance, a soil that has recently had a good clover sod turned under is quite likely to be well supplied with nitrogen, and a smaller amount of this ingredient need be applied in the fertilizer."

"For general crop purposes, a fertilizer containing about three per cent nitrogen, eight per cent phosphoric acid and seven per cent potash would ordinarily be useful, and this is about the grade of fertilizer that can be made by the purchase of nitrogen in the form of nitrate of soda and dried blood, phosphoric acid in dissolved rock, and potash in muriate of potash. A very good formula to follow in mixing these goods is to use 1,200 pounds dissolved rock, 200 pounds nitrate of soda, 300 pounds dried blood and 300 pounds muriate of potash for one ton of the mixture."

### Murdering the Mole

Theoretically we should protect the mole as our friend and an industrious destroyer of grubs, worms and other insect enemies of the soil tiller. In this respect this subterranean burrower resembles certain birds which we also protect, at least in theory. Practically it murders our peace of mind and our garden enjoyments when we find whole rows of plants thrown out and drying up by reason of the moles having tunneled underneath them. Therefore in many cases nothing is left for us to do but to murder the intruder.

A correspondent of Indiana "Farmer" says:

"I want no trap, or poison. I go out in the morning and tramp the dirt down in the runs, and when the time comes for them to go to work, I go and look for them and keep very still. When I see one raise the dirt, I jump on him with my heel and stamp the ground so hard that he can't move. Then I call my dog and have him dig him out. In a short time I have the dog hunting moles in the same way. Also teach the children to hunt them; offer a penny for each scalp, and in a short time there will not be a mole on your place."

*T. Greiner*

### Support for Pole-Beans

I place a high value on the lima beans. I plant them in rows three feet apart and three feet in the row, placing the hills directly opposite each other. I use wool twine for them to climb, and old gas-pipe for standards to support the twine.

Set a section of the pipe eight feet long firmly in the ground ten or twelve feet apart. Drive a plug of wood in the top end, then two spikes into the plug in the shape of a fork or notch. Place the long sections of pipe in these forks, and the stand is ready for the twine.

Split some sticks one foot long, sharpen one end, and bore a three-eighths-of-an-inch hole in the other end for the twine, which should be tied with bow-knot. Drive the stick on the outside of the hills, pass the ball of twine over the stand, and take one turn; drive the stake, cut off the twine the proper length, and tie as before.

If the twine should become too slack, drive the stakes. The vines will climb the strings more readily than they will poles.

After picking the beans the vines may be removed from the cords by loosening from the stakes, and separating the vines at the top and stripping them off the cord. The twine and stakes will usually last two years, if properly cared for.

If gas-pipe is not at hand, small straight poles may be used for the horizontal supports, and wood stakes for the uprights.

A. J. KEENEY.



## Rate of Increase on White Pine

IT MAY be laid down as a general principle of political economy that land should be used for those crops which will conduce most to the welfare of the people. This would mean that land best adapted to agriculture should be used for agriculture, and the best adapted to the cultivation of forestry should be used for that purpose.

Quite recently I visited the Fon du Lac Indian reservation, in Minnesota, with the manager of one of the largest lumber companies in that state, and we looked over the reproduction on this land, which was cut over and thoroughly burned about eighteen years ago. There were left a few seed trees of white and Norway pine, and these have brought about a very satisfactory seeding of the land, and there is now a nice young growth on it varying from two to ten feet high, and from a few to sixteen years of age.

Of course the question then came up as to what this reproduction would probably be worth in thirty years. We paced off an acre that was poorly stocked, and found something over five hundred seedlings on it. Other acres had two or three times as many. As a basis of calculation we found that the growth on these trees for the last six years had been about one third of an inch in diameter, and the height growth from twelve to eighteen inches per year. Using this information as the basis for our subsequent calculations—and other observations bear us out in this, we estimated that this land would have on it, in thirty years, a stand of about four hundred trees per acre, averaging twelve inches in diameter at breast height. Such trees would make two sawlogs, or eight hundred logs per acre, and would probably run about twenty logs to the thousand. On this basis the yield would be forty thousand feet, board measure, per acre. But as there is always a chance for error in such calculations, suppose we cut the estimate directly in the middle, which would make the yield twenty thousand feet per acre in thirty years. Such material is valuable for box boards and similar purposes, and would probably be worth \$12 per thousand, or \$240. This was on land of second and third quality, which could not be expected

## Fruit Growing

### Grape for Arbor

E. E. W., Neoga, Illinois—I think probably the best grape for you to use for an arbor is a variety known as Jancsville. This is a very healthy, vigorous variety, and while the fruit is not first class, yet the foliage is so excellent that I think it the best of our varieties for your purpose.

To describe the best kind of arbors to build would take up too much space. There are, however, various ways of doing this. A style of arbor that I like quite well for some places is one made of long poles, three or four inches in diameter, and perhaps twenty feet long, made into the form of an Indian tepee, over which the vine is trained and makes a summer-house.

### Cow-Peas as Cover Crop

M. B. S., Murphytown, W. Va.—Cow-peas make a very good cover crop for an orchard, but the forage is difficult to cure satisfactorily, and is much better for plowing in as a green crop than curing for hay. It is, however, sometimes used in this way. If your land has done well in clover, I can see no objection to putting it again into the same crop.

The best cow-peas for your section is probably the variety known as Whip-poor-will, and they should be planted at the ordinary time for planting beans, which crop they more resemble than peas.

Cow-peas make one of the best crops for improving the soil and are highly esteemed for this purpose on the worn-out lands through the South. They grow much better in the Southern and Central States than further north.

### Fruit Association

V. G. M., Kearneysville, West Virginia—The fruit growers of Hood River have one of the most perfect associations that I know of. I think if you address Mr. E. H. Shepard, at Hood River, that the letter

cold wash the under side of the leaves with it, holding them against the palm of the hand and rubbing with a soft tooth-brush. This will have to be repeated several times a year for awhile until you are thoroughly rid of the pest. A half-hour after applying the suds, wash with clean water. If your plant is a very small one, I think you had probably better throw it away and start with a new plant.

*Samuel B. Green*

### The Northern Spy

The market price of apples is encouraging farmers to give more attention to their orchards, and in many instances to increase the acreage. \$1.50 per bushel is a common price for good fruit last spring, and some have standing orders for all the Northern Spys they can furnish at \$2 a bushel.

This variety is a favorite in western New York, but comparatively few orchardists succeed in producing strictly A1 fruit. The Spy does not generally pay the careless orchardist, and even the careful one will not succeed with it on stiff, cold soils where Baldwin and Greening may be termed good-paying varieties.

Planted on medium heavy soil, well drained, either naturally or artificially, the trimming done judiciously, spraying attended to in season, and the fruit left to color on the tree, this variety is a grand one for this section of the country.

E. H. BURSON.

### The Keiffer Pear

I see many criticisms of the quality of the Keiffer pear by writers of horticultural topics recently. The pear is said to be coarse grained and of inferior quality generally, which may be true, but I have a Keiffer pear tree growing which

## Strawberry Culture

In the "Strawberry" for June, Mr. A. D. Stevens gives the following practical experience:

I have studied the nature of strawberries for at least twenty years, and find that each variety needs to be studied closely, and then be treated to suit its nature if success is to be realized. For instance, if plants are deficient in foliage but strong in yield of berries, great care should be taken to increase the foliage and to preserve a balanced plant as between fruit and foliage. This kind should be cultivated much later in the fall, which will overcome the defect to a large degree.

If plants show signs of being weak at this time of the season their first runners should be cut off to give them time to become more firmly established for the work they are about to perform in producing new plants.

I have been working on seedling plants for sixteen years, and find a great field here for experimentation. I don't allow any plants to go on the market until it has been worked on all kinds of soil and been thoroughly tested and proved to be of high quality and perfectly balanced in all respects. After I find a seedling plant that shows a certain number of good qualities I then breed them up by bud selection.

For growing a fine and large crop of berries, labor and manure should not be used too sparingly. The good book tells us that it rains on the just and unjust alike, yet we have our part to perform or nature cannot give us a large crop.

I am growing strawberries on newly cleared land at present, and find it less difficult to keep down weeds than it is on old land. I burn the brush and cut-barrow the land first, then take a five-tooth cultivator and pulverize the soil thoroughly, after which I harrow with a spike-tooth barrow, and then let it lie through the winter. In the spring I prepare the soil for setting the plants by this method. I find that berries do better than when one plows the top soil down and turns the wild yellow soil up.

I have a T-shaped steel which I insert in a shovel handle that I find is a great labor-saving tool to cut the runners after they have been layered and are thick enough set. This can easily be sharpened on a grindstone.

In cultivating the bed after it has been picked, I find that to mow the vines off, then burn them and harrow the rows to about twelve inches is the better way. I use an ordinary five-tooth cultivator, taking the wide blades off and putting on about one-inch, or one-and-one-fourth-inch blades. Spread the cultivator so it will cut the soil about every six inches to the depth of about two inches, then when the plants start a new growth the work with the hoe will not be much to thin the plants to the proper number.

### Spraying in a Large Way

In a recent number of the "Kansas Farmer," Mr. E. F. Stephens gives some of his experience in spraying large orchards. He says:

For fifteen years we have been using a power sprayer, the pump geared to the wagon wheel. This year, however, we have installed an entirely new spraying apparatus run by a gasoline engine, which is far superior, throwing a steady, strong mist of spray and applying more gallons in a day. By using two teams and four men, we are able to apply about 2,500 gallons of spray daily. One team draws the spray-tank and gasoline engine combined, while the other hauls the liquid from the mixing tanks to the spraying outfit in the orchard, so as to run the engine continuously.

In order to preclude the possibility of running out of water at this crucial time, we have put in a cistern holding 6,000 gallons of reserve water, so that we are able to spray steadily without being entirely dependent upon the wind. We have also put in a system of elevated tanks in order to facilitate the mixing of the ingredients of which the spray is composed.

So far we have sprayed with Bordeaux mixture, using four pounds of sulphate of copper and five pounds of lime to fifty gallons of water. To this we add two and one fourth pounds of arsenate of lead.

The first spray was applied before the blossom buds opened, but while they were showing. We have just finished the second spraying, aiming to get some of the poison within the slowly closing calyx of each apple. We at once begin the third spraying, using this time only arsenate of lead in the strength of two and one half pounds to fifty gallons of water and two pounds of lime. The object of this application is to serve as a check on the spraying just completed, in case any branches were missed. Having covered the orchard the third time, we will then postpone all further spraying until the middle of July, when we will again spray with Bordeaux mixture and arsenate of lead, hoping to check by this means the work of the second brood of our ever-persistent enemy, the codling-moth.

A. J. LEGG.



A FARM SUMMER-HOUSE

to produce anything like the same value in other agricultural crops. In this connection it should be noted that white pine in New England, under similar conditions, often yields forty thousand feet, board measure, per acre in forty-five years.

The most discouraging feature about such propositions is the fact that our tax laws are so framed as to discourage the holding of land for forest purposes, but since forests are of more benefit to the state than general agricultural crops—from the fact that so many important state industries are dependent upon them for their existence, and for their effect on soil water, it would seem as though the state ought to be willing to put them in a special class for taxation in order to encourage the use of land for such purposes.

will reach him. The Hood River people are very proud of their section, and are anxious to advertise it. If you do not hear from Mr. Shepard, I think if you address the Secretary of the Commercial Club there that you will get an answer.

### Leaf Scale on Ivy

T. J. H., North Branch, Minnesota—The ivy leaf which you sent on seems to be affected with one of the greenhouse scales. You will find lots of this on the under side of its leaves. I think the best remedy for it would be for you to make up a very strong soap-suds in soft water; say make up a quart of the suds in hot water and to it add about one teaspoonful of kerosene while it is still warm. When

I bought some ten years ago that I would not have removed for ten times its cost. It is a very thrifty grower and has never failed to bear some fruit each year since it has come into bearing. Sometimes it is very full, and other years it only bears a few bushels, and while the fruit may not be of the very best quality, still the pears are very large and are excellent keepers. In their proper season, October until January, they are a very good fruit. I know of no other pear that has proved to be as sure a bearer and as hardy a tree as the Keiffer, here in the southern part of West Virginia.

Fine quality of fruit is an important point in favor of every variety, but sure bearers of good, large fruit is of more importance to the general farmer and fruit grower.



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## Live Stock and Dairy

### Better Cows

I CAN conceive of no surer or more satisfactory way of getting dairy cows of real merit than by raising them.

Men in the dairy business owning such cows find more profit in keeping than in selling them. Then one may raise ever and ever so many cows and have very few good ones among them, for they may not have been bred wisely nor fed well. Crossing a male and female of the dairy does not in the mechanical simplicity of the act produce an animal that will make a good cow. There must be some thought, some oversight, some theory of the breeder, to produce an animal that one may reasonably expect to mature into a good performer.

The difference between the cow that is produced by random breeding and the one of acknowledged good breeding represents the skill and intelligence of the breeder. Surely no one working for herd improvement will deliberately use a bull of no definite breeding, one that has not sired good cows, or if yet too young to have made a cow-producing reputation, should at least have the recommendation of having descended worthily from families of great dairy merit.

Reduced to its simplest statement, a good cow has good breeding in her from some source, for the original, unimproved cow could not have been in any essential sense a good dairy cow. If a little good breeding is a desirable thing, why is all the good breeding we may command not proportionately desirable? The bull of no breeding is entirely an unknown quantity, and what manner of cows we may have from his siring is far beyond the limits of even guess-work.

If we would produce good cows we must use good cows and better sires to lay the foundation. After the calf is born the building is in the hands of the feeder.

*W. F. McParlan*

### Firm Bacon

The feeding of pigs for the production of first-class bacon is an art which it is hopeless to attempt to discuss profitably in any one or two articles. There are, however, certain feeds, certain requirements and certain conditions which influence more or less strongly the quality of the product, so far as firmness is concerned, and of these I would write.

To begin, I would urge that there be a proper conception of the meaning of "soft pork" and "fat pork," for these terms are far from synonymous; and it should also be remembered that the "fat hog" is the "firm hog" quite as frequently as is the hog that has a thinner layer of fatty tissue.

And again, it is not to be inferred that certain breeds of pigs always produce "soft pork." So far as breed influence on firmness is concerned, I personally think that any one of the common breeds is as good as any other of the same. Some breeds, as Poland China, doubtless tend to produce short, thick sides. These may, however, be quite as firm as the most perfect Wiltshire side ever grown.

The influence of locality or climate is one that has come in for more or less consideration, but so far as experiments go, is a factor of very small importance; in fact, quite negligible, save in so far as it influences the kind of food fed the pig. Certain sections are noted for a good quality of bacon, but doubtless because of certain feeds peculiar to that district, while other sections produce large quantities of "soft pork," no doubt because of certain foods that are fed there.

The most common cause of soft pork, so far as has been found by experiment, observation and inquiry, are:

Feeding pigs too rapidly from birth to the required weight. This rushing process, while it does not always give bad results, frequently produces soft sides, and not seldom are the carcasses both "soft" and "thick."

"Feeding off," or rather, selling when under weight or before maturity, is one almost certain indication of softness. Generally speaking, also, the degree of immaturity may be taken as the measure of the softness, that is, the further from maturity the softer the flesh is likely to be.

Improper feeding. Pigs fed on any ration not conducive to health, or fed in any way not favorable to thriftiness, are almost certain to yield a large percentage of "softs," while properly fed hogs will

yield a high percentage of "hards." There can be no doubt that ninety-nine per cent of properly fed and properly cared-for pigs will produce firm meat.

Properly cared-for pigs means pigs under conditions conducive to health and thrift. Airy, roomy, light quarters are the right sort. If space is an expensive consideration, as it usually is, especially in winter, then let the small space be well ventilated, well lighted and kept clean. Large runs are not necessary where the other conditions are provided.

The most important factor in the production of firm bacon is undoubtedly the food.

The preparation is apparently a matter of minor consideration, so far as influence upon firmness of flesh is concerned, save in so far as it affects the health of the animal.

The rate of feeding is of more or less importance, as indicated above, since "rushed" pigs produce more or less "softs."

The kind of feed is the thing. Corn fed alone produces a very large number of "softs." Corn fed with a small proportion of skim milk or whey gives much better results. After the skim milk or whey constitutes ten or fifteen per cent of the dry matter of the ration, the proportion does not appear to matter greatly. Just incidentally the addition of such an amount of skim milk or whey cheapens production materially. Roots, clover, steamed or green, rape or grass may take the place of skim milk with corn, and give results nearly as good. A small proportion of corn with the cereals, oats or barley, or better still, with peas or beans, does not appear to have any bad effect.

Barley is unsurpassed as a feed for the production of firm bacon. Oats also are most excellent. Peas and beans produce good results, and mixed with grain are exceedingly valuable.

In conclusion, skim milk or whey are almost infallible guarantees of firm pork. The cereals and peas or beans fed properly constitute an almost faultless ration. Corn may be fed, but must have some counteracting food along with it, or it will give bad results.

W. R. GILBERT.

### Treatment of Sheep with Stomach-Worms

It is during the summer months that loss from the twisted stomach-worm of sheep occurs, and flock owners should early endeavor to prevent their flocks from becoming diseased. Healthy adult animals seldom become affected with this disease, and the greater part of the loss occurs among young and weak animals. However, if the conditions are favorable for the sheep to become infested with this parasite, the death rate among the mature animals is also heavy.

This disease is not as difficult to treat successfully, as is generally believed. The preventive treatment is very important. It is based on keeping the sheep in a healthy, vigorous condition, and among surroundings unfavorable for the entrance of the eggs or larvae of the parasite into the digestive tract with the feed. Drinking surface water and permanent pastures, especially if pastured close, are favorable for the production of the disease. The preventive measures that are most practical to use under the local conditions can be judged best by the person in charge of the flock, and the success of this part of the treatment will depend on the precautions that he deems necessary and the thoroughness with which they are carried out.

Sheep raisers, who have lost sheep from this cause in former years, should not wait until the disease develops in the flock before using medicinal treatment. The following mixture is recommended by Doctor Law, and has given excellent results: Arsenious acid one dram, sulphate of iron five drams, powdered nux vomica two drams, powdered areca two ounces, common salt four ounces. This mixture is sufficient for thirty sheep, and can be fed with ground feed once or twice a week. In case the symptoms are already manifested, it should be fed once a day for two or three weeks. In giving this remedy in the feed, the necessary precautions should be taken, or each animal may not get the proper dose. Turpentine is largely used in the treatment of stomach-worms. It is administered as an emulsion with milk (one part turpentine to sixteen parts of milk). The emulsion should be well shaken before drenching the animal. The dose is two ounces for a lamb and four ounces for an adult, and to be effective should be repeated daily for two or three days.—R. A. Craig, Veterinarian of the Indiana Experiment Station.



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### Training Colts

I always have good, gentle horses. The first lesson is given when the colt is just a few days old. I tie the dam so as not to be hindered by her. I catch the colt and hold it until it gets quiet and over its scare. Then I place one arm around the neck near the body and the other behind hips where the breeching works, and then say "Get up," at the same time giving the colt a push. In a little while it will learn to obey every command. It can be taught to back by saying the word "back," at the same time pushing it back. When it obeys give it an apple or a little sugar or salt. By working this way you will be surprised how soon it will obey you.

When going to the pasture I generally have a bite of something for the colts. In training them in this way they expect something when they see me, and they are never hard to catch, or never seem to dread or fear man.

In teaching a colt the word "whoa," I do it by holding. Or I tie the dam and then tie the colt near her. After it has quit struggling I say "whoa," at the same time rubbing it. In a little while it will learn when you say "whoa" that it means stop.

When breaking the colt to work I put harness on with ropes in the traces. Having someone to lead, I get behind and say "get up," when my helper leads it forward; at the same time I give the traces a slight pull. If the colt frets or gets mad, I cease pulling until it is quiet; then I commence again. In this way the colt gets used to collar pressure and goes quietly. After breaking in this way I hitch to something heavier, always being careful not to get them fretted. In working a colt I never get in a hurry, or pull a load but a few steps, letting them stop and rest. I find a light sled or a drag the best thing to hitch to. I hitch them to a sled, giving a side pull about a step or just enough to move it sideways a little, and next time I go a little further, and when they will move it readily to either side, then I pull it endways, being careful not to pull too far. When the colt seems willing to pull any way I put on a light load and increase as circumstances will allow. After the colt has learned to pull, I then learn him to

## Live Stock and Dairy

among swine. Indeed, it may be possible that the flesh of hogs fattened under such filthy conditions causes disease in the human family.

In recent years the manufacture of Portland cement has greatly increased, and a consequent reduction in price has brought that article within the reach of every farmer, so there is no longer any excuse for a man to feed hogs on the ground.

The size of the floor should be determined by the number of pigs or hogs to be fed. The ground made smooth, with a dip to one side, so water will run off. Fasten a two-by-six-foot plank entirely around the floor, edge upward. The easiest way is to set posts on the outside and spike planks to posts, sawing the latter off so they do not extend above the planks. Now fill with concrete, the dealer will give you the formula, to within one or two inches of the top of the plank. Let it harden. It can be easily kept clean, and will last for years.

U. S. ELLSWORTH.

### Saving Liquid Manure

Before the fall rains set in haul in as many loads of dry loam as you may need. By judicious use one load will do for six cows for one winter. Put this earth in an airy place, and it will dry off to a dry powder. If this is put in the trough after cleaning out night and morning you will save all of the manure.

E. H. BUFFUM.

### Remedy for Bloat

As the season has arrived for bloat or clovered cattle, I will send you a valuable recipe which we have tried and found to be a cure. When you find an animal suffering from bloat, no time should be lost in using the remedy, which

away from his full share, and as for the stronger ones, they ought to be licked for being "hogs."

Did you ever lose your patience, and your time, and perhaps a little religion, in trying to drive a hog? Don't hurry! If the hog stops, give him a little time to think and he will generally decide to go ahead. If he wants to go back, give way a little, but stop him as soon as you can without getting him excited.

I had trouble with my sows eating their young till I learned to feed salt. Commence feeding a little salt in the feed a while before farrowing time, and your sow won't eat her pigs. It is surprising how much salt a sow will eat at this time if she has not had any. R. BRADFELD.

### Turnips For Stock

The turnip crop is often neglected in the rush of the busy summer season, and yet it may be made to pay quite as well as other crops. Turnips are a valuable appetizer to feed to animals in the winter season. Especially do the cattle, hogs and sheep relish turnips fed in moderate quantities. Turnips are not high in nutritive value, but what nutrition is found in them is easily digested. Stock get a higher percent of nourishment out of the succulent turnips than they can do from the more concentrated dry feeds.

Turnips may be sowed as late as July 15th, or in some sections August 1st, with good results. The early potatoes may be harvested and the turnips sown as a catch-crop. As the turnip plants are very small, when starting, the soil must be well prepared and free from weeds. The turnips grow very rapidly, hence the importance of having plenty of available plant food in the soil.

Once or twice I have succeeded in growing a good crop of turnips sown in

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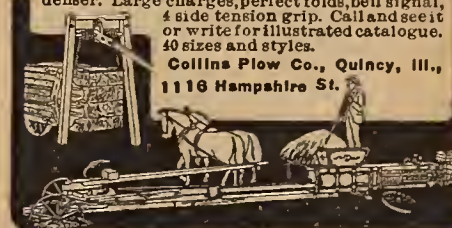
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JOHN A. McKERRON, 2:04 1-2—FAMOUS TROTTER STALLION

drive. This can be done easily by having the helper turn right and left, at the same time pulling the line in that direction. In a short time the colt will turn without being led.

In breaking a colt to ride I find it a good plan to leave it tied in the stall, and put a small boy on, holding him carefully. Do not throw the boy on or get the colt scared. Let the boy rest his legs on the colt's side or back at first, and slip him on as the colt quiets down. When the colt is quiet, lead it up and make it back where it is tied. When broken in this way it can be taken from the stall and led.

J. S. KNIGHT.

### Cement Feeding Floors

The greater number of hogs fed in the United States are fed on the ground, and this because many feeders have not floor space on which to feed. In winter and spring there are many days when the ground is soft, and corn is thrown out in mud and filth, and it is a great wonder that there are not more diseases prevalent

is pure tar. Give one tablespoonful for a dose. It has cured after the animal was down.

You can buy the tar in cans for medical purposes at all drug-stores.

M. MORGAN.

### Slopping Hogs

Did you ever try to pour slop into a trough full of hogs, all reaching for the bucket? Perhaps you poured it in through a spout, and a hog had his head right under the spout, turning part of the slop out onto the ground; or those nearest the spout got the most of it.

When I go to feed my hogs, I take a gad with me (a hog learns as quick as "anyone else"), and they soon learn to line up and wait respectfully till they can all have an equal chance. Cruel? Well, it seems cruel to have to suffer when we cut ourselves, even though we "didn't go to," doesn't it? I believe a hog can better afford to take a little "pains" to learn to stand back and wait just a moment, than to have his stronger mates crowd him

the corn after the last working, but usually this method has been a failure with me.

A. J. LEGG.

### Balanced Ration for Bull

Were it not for the fact that oats are quite expensive there is perhaps no food that is quite so good for growing young bulls running on grass. If under a year old the youngster should be fed all the oats he will clean up nicely or one half oats, one half bran, with a small handful of flaxseed-meal added daily will produce good results. Flaxseed-meal differs from oil-meal in that it contains an excessive amount of fat or oil, and should, therefore, be fed sparingly.

If the bull is aged and in service he may be fed a smaller amount, say four pounds per day of either ground oats or bran and oats, mixed half and half by weight, with a small amount of flaxseed.

In fact it would not be absolutely necessary to feed the aged bull that had attained his maturity any grain, unless he is doing heavy service, when he runs to pasture.—H. G. Van Pelt, in the Jersey Bulletin.



### Protein Foods for Poultry

**W**HILE the carbonaceous foods (corn, wheat and other grains) are liberally used, for all kinds of poultry, there is usually a deficiency of the foods that tend to promote growth of bone and muscle. In testing foods rich in protein (such as meat, linseed meal, gluten meal, clover, alfalfa, etc.) it has been demonstrated that on the farm the chick and duckling can supplement their allotted ration with grasshoppers, flies, beetles, worms, slugs, and other forms of animal life that are rich in protein. But in confinement, especially where the flocks are large, the young birds cannot secure a sufficient amount of protein, in the limited range of natural animal food that comes their way, to balance up the carbohydrates of the grains. When shut up also, the birds lack the vigorous exercise that might enable them to utilize large amounts of foods low in protein so that they could secure the needed quantity of this essential requirement for rapid and profitable growth. The cereal grains, especially corn, are very starchy foods, and no combination of them will give a nutritive ratio narrow enough to develop the young bird rapidly, hence some supplement must be used. Seeds of the legumes, like peas, beans or cow-peas, are richer in protein, but unfortunately these foods are not well liked by poultry and will not be eaten in any considerable quantity.

Those materials that are richest in nitrogen are the concentrated by-products, but these products are not, in a way, natural foods. They are refuse materials from slaughter-houses, from creameries or from oil-mills, parts of grains from starch factories and glucose works, sprouted grains from distilleries and breweries, or other materials whose natural composition has been changed in some way. It is not safe to depend on the content of protein and fat in estimating the food value of such materials for poultry, as may usually be done in case of whole grains. Palatability, constipating or laxative effect, excess or deficiency of mineral matter are all factors to be considered. The adaptability of such seeds can only be determined by actual trial.

At the New York (Geneva) Experiment Station experiments in the matter of providing protein food has received considerable attention, the results of which are herewith given. The station has fed several of these by-products to poultry, and finds such marked differences in their effect that the results are well worth presentation. In the test with ducklings three pens of from twenty-five to thirty birds were fed for nine weeks, starting when the ducklings were one week old. Three highly nitrogenous rations were fed, the basis of each being corn-meal, green alfalfa, and a mixture of four parts cream gluten meal, two parts each of pea-meal and low-grade flour, and one part each of corn-meal, wheat middlings, and blood-meal, with five ounces of salt for every one hundred pounds of the mixture, and with a liberal allowance of sand.

To this basal ration there was added about one third of the amount of the by-products to be tested: For lot 1, animal-meal and meat-meal; for lot 2, blood-meal and bone-meal; and for lot 3, milk albumen and bone-meal. Lot 2 made much slower growth than either of the other lots, 1 and 3 being about equal. The average gain for the birds in these lots, in nine weeks, was five and one seventh pounds, for those of lot 2 four and one fourth pounds, but each lot are almost exactly the same amount of dry matter for a pound of growth. That is, the ration for lot 2 was of the same productive value as the other rations, when eaten, but it appeared to be unpalatable, so that the ducklings would not eat it freely enough to make a rapid growth. The ration containing the milk albumen was the most satisfactory, so far as the general appearance of the birds was concerned, as the plumage developed more rapidly and evenly under that ration than under animal-meal and meat-meal, but the relatively high cost of the milk albumen made the ration less profitable.

In another test, forty to fifty chicks, in each of four pens were fed for eight weeks. The by-products tested were: For lot 1, animal-meal; for lot 2, milk albumen; for lot 3, gluten meals, and for lot 4, gluten meals with ground bone to make up any deficiency in ash. The growth of the chicks was slow. Most of them were Leghorns. Lot 1, on animal-meal and lot 2 on milk albumen did fairly well, the increase being about equal for the two lots. The chicks of lot 3 on gluten meals gained only one third as much as those in lots 1 and 2, and those in lot 4, with ground bone to supply the ash deficiency of the gluten meals, about two thirds as much. The gluten meals appeared to be unpalatable, cream gluten meal less so than Chicago gluten

meal. The use of anise and fennugreek, to disguise or flavor the gluten meals, resulted in but little better consumption of food. The milk albumen here, as with the ducklings, was palatable, being somewhat superior in this respect to the animal-meal, and was the more healthful food, but its cost made the ration unprofitable.

It was observed in both of these tests, as in many other tests along different lines, that the unfavorable effect of a ration was most marked during the first few weeks of the bird's life. Differences tended to disappear as the chicks or ducklings became older. It is essential that young poultry be fed rations made up of foods known to be palatable and healthful. Older birds can utilize to better advantage some more questionable materials.

### Forcing Fowls for Market

Machines for forcing (cramming) food down the throats of poultry are in common use in Europe, and have been tried in this country with success, but they must be under the supervision of a competent individual, as it is sometimes the case that the birds are overfed and become sick; in fact, it is not difficult to understand that there is a limit to the digestive capacity of a fowl, and that it may be given more food than it can digest.

It is claimed that fowls will fatten more readily in close confinement, in coops or pens that are so darkened that they cannot see anything which might attract their attention and cause them to worry and excite themselves. Fattening should not be attempted until the birds have attained their full growth, as young birds convert a large share of the food into growth, nor is it advisable to fatten on corn alone, as the fowls would be subject to indigestion. While grain should form the principal food, they should be supplied with a variety of anything they will eat, clover and all kinds of green food being particularly desirable.

The more the appetite is tempted the more quickly the fattening process will go on. Corn-meal, moistened with milk, adding an ounce of melted tallow, or lard,

the time they can run at large, and pick up their own living, without cost, while they also give a large return for the necessary trouble and expense.

At this season of the year, when grass, seeds and insects are abundant, the fowls should cost nothing to the farmer for their keep, and the hens should now be laying full quotas of eggs. If a flock does not prove profitable it should be discarded for new stock. Considering the small amount of capital usually invested in poultry there is no larger profit made on the farm than with poultry.

### Results with Poultry

The object in keeping poultry, by the large majority of poultrymen and farmers is profit. They cannot afford to devote time and labor to the flock without satisfactory results. It is well known that but few have succeeded with large numbers, compared with small flocks, yet the larger the number the smaller should be the expense, proportionately, as the cost of labor for each fowl is lower. The small flock entails little or no cost for labor, as the labor of attending is given no value. Small flocks are sometimes fed almost wholly upon refuse material, which is not estimated as to cost. Scraps from the table and waste from the garden will go a long way toward feeding a dozen, but not far for a hundred. The French afford a good illustration for this idea. No fragment of time, nor product of growth is lost. The care of poultry is among their minor industries that afford employment to the extremes of youth and age.

The comparative profit of small and large flocks of chickens only illustrate, in an exaggerated fashion, the difficulty in getting a profit out of large farms. It is possible for our farmers to conduct poultry operations profitably on a large scale, by observing with extreme care the conditions that make small flocks profitable. If the birds are allowed free range without crowding, pure air and water, and the needed variety of food, (vegetable and animal) which a small flock obtains in its voluntary forages on the farm, they will be healthful and profitable. Perhaps all



A FLOCK OF WHITE LEGHORNS

or cottonseed-oil to every pound of corn-meal, fed three times a day—all that the birds can eat—with green food and a little animal meal at night, will fatten them rapidly.

### The Profits

It may not be the privilege of the farmer to give personal attention to his fowls at this season, nevertheless the keeping of poultry may be made a source of great profit to the farmer. Probably every farmer keeps a fair supply of these almost necessary adjuncts of the domestic abode, but many declare that they are a nuisance on the farm, instead of something which will contribute to the good of the household.

This may be true in some cases, for without some plan for their management it will often occur that considerable damage may be done by their depredations where they have the run of the farm, but yards may be constructed at very little expense, so that they may be controlled for a few days or weeks when special kinds of work may be going on, but the most of

farmers know how to feed enough, but to feed for results is a different matter. Feeding for eggs and feeding for fat require discrimination. It is in studying the conditions that the poultryman uses his knowledge and derives profit while some of his neighbors may be feeding corn only and getting nothing in return. There is no secret in the matter. Feed a variety; do not feed corn alone, nor feed too much, but feed both grain and vegetable food as well as animal matter.

### Meat Production and Cost

A steer will produce one thousand pounds or more of meat for market, but the cost of the meat produced by the steer may be greater than that necessary for producing poultry meat, and the time required for reaching the market, from infancy to maturity, is greatly in favor of the fowls, while a large number of fowls are capable of equalling a single large animal.

Experiments have shown that it should not cost over five cents for the food required to produce a pound of poultry.

The duck, for instance, although consuming more food than the chicken, grows much more rapidly, choice ducklings reaching the market in one half the time required for chickens, and choice specimens have been known to gain nearly a pound a week, whole broods reaching the market when eight weeks old, and weighing four pounds each. The advantage in keeping poultry for meat production is that the fowls are largely self-sustaining during the warm season, and the cost of production is therefore at a minimum, as they consume many kinds of foods that animals on the farm will not utilize.

### Preserving with Water Glass

Preserving eggs with water glass is pronounced a success by a Kentucky subscriber, which is encouraging, considering that it has not proved satisfactory with some. He processed forty dozens of eggs last September, using water glass diluted with nine parts water. He was consuming some of them at the time of writing (March 21st), and pronounces them excellent. He states that the eggs should be carefully "candled" before putting them in the liquid. It may be added to his statement that one cannot buy eggs from all sources and succeed. Eggs from hens that are in good condition, and which are fresh when preserved, will prove more satisfactory. Eggs from hens not with males will keep twice as long as eggs containing the germs of chicks.

### Ornamenting the Poultry-Yards

Bare poultry-yards are unsightly, and it will cost but little to have trees in the yards, not only because they are ornamental, afford shade, and are profitable, but also because the fowls will protect the trees, to a certain extent, against insects. Every fence should have grape-vines on the outside of the space inclosed, as they partially shade the yards, and also enable the farmer to utilize the fence by securing a crop of grapes. The vines, which may be set out late in the fall, should not be placed too close to the wire, but there should be space for the hoe to keep down the weeds. When the vines are well grown, which will be in two or three years, they can be trained in any manner preferred on the wire of the fence, but the grapes should be high or the hens will get a share. The vines will require management, if they are to give satisfactory results, and when the yards are made to produce fruit as well as afford space for poultry, the profit should be almost certain. If grape-vines are not suitable the fence should be used as supports for flowers or for some other purpose.

### Charcoal for Chicks

A lady subscriber in Ohio desires readers to know that she has found freshly burned charcoal, including charred grains, one of the best of all remedies for bowel diseases, even for roup. The problem with little chicks in brooders is bowel disease, to overcome which she every day pulverizes fresh charcoal and mixes with the food, the difficulty quickly disappearing. Charcoal is a corrective, absorbing gases, and promoting digestion of the food and poultry, as has been demonstrated by experiment. It is most efficacious when freshly prepared, and it will also absorb gases from the atmosphere. Old charcoal may be freshened by being placed on a fire until heated, when it should be removed and pulverized. It may be fed in any quantity, a small boxful holding all that the fowls and chicks desire to consume.

*P. H. Jacobs.*

### Barley

More barley should be fed to poultry. There is no better grain food, whether fed whole or ground, for the feathered bipeds. It is cheaper to feed than oats, and, as a rule, is superior as a whole grain to the latter. Some of the oats fed to hens is very questionable and unprofitable "grub." Examine the oats and the barley and see which looks the most inviting and then try both on the hens. The latter usually know a good thing when once they are thoroughly acquainted with it. We noticed that some hens we had last season had a decided fondness for barley. The French poultry raisers feed much barley to chickens and it is a well-known fact that the poultry of France is a very superior article on the table. Even the hog growers are awakening and find barley a most valuable food for hogs, and some claim it is the very best. In Denmark barley is looked upon as the best feed for good bacon.—The American Fancier.



## Tri-County Pomona

**P**ORTAGE, Stark and Columbiana Counties, Ohio, held a tri-county Pomona at Sebring, May 19th. It was the largest Pomona ever held in the state, and the preparations were as great as for a State Grange. "The town was profusely decorated with flags and thousands of yards of bunting," writes State Master Derthick. "Banners of all kinds stretched across the streets. 'Welcome Pomona Grange' everywhere displayed. The citizens tendered a public reception, the mayor made an address of welcome. Each visitor was given a souvenir of decorated pottery which the town manufactures. The merchants gave badges and the press printed programs. Everywhere was warmth and cordiality. I never saw it equaled."

State Master Derthick and Miss Harriet Mason, of the "Ohio Farmer," were guests at this magnificent meeting, and both made addresses. Local granges furnished excellent music. Mr. Derthick spoke of legislative matters and of education, devoting most of his time to the latter. Miss Mason spoke of the educational work of the grange and of the woman's part in particular.

Who can realize the meaning of this outpouring of a people, not to celebrate a noted victory of men of arms, but to celebrate the finer victories of peace, and to strengthen themselves for a greater work.

I cannot let this occasion pass without comment on the work Miss Mason is doing for the farmers, and for the women in particular. She has labored in the school, grange, and through the "Ohio Farmer" to bring a higher, richer life to all.

State Master Derthick has shown he is a real leader. There is not a man more in the public eye to-day than this modest, unassuming farmer, who when the General Assembly adjourned, went back to his fields and his stock. But the people will not have it so, and the calls for addresses are constant. The call for him to lead is greater than ever before.

## Teachers in Sanitation

P. L. S., of Darke County, Ohio, writes: "I have taken the first term's work for both men and women, in the educational work. While both are valuable I found the most interest in the study of sanitation. I believe if we all paid more attention to the sanitary conditions of our homes that we would be happier. I like the study. Do you think it would pay me to make a study of this. If I thoroughly prepare myself, can I get a position as teacher or lecturer?"

This young man states a fact and asks a question. Here is a need, and here is a desire to qualify one's self to fill that need. Will there be an opening? Specifically, we are still on the outskirts of sanitary science. People realize that they suffer needlessly. The old theory of physical suffering as an expiation of sins committed by people living several thousand years ago is being replaced by a saner notion that the things we suffer are, for the most part, from our own breaking of laws. There is a near cause for every effect. We may not know the cause, but we do know enough to realize that most of the aches and pains are needless, save as penalties for our own misdeeds, instead of vicarious punishment. Of the laws, the causes, the results, they have little specific knowledge. There is need of teachers. It is gratifying that people desire this knowledge, that they are willing to seek it. It is this fact that makes possible such work as the grange is doing.

Mental and spiritual states are but indices of the nervous condition, and a man is a hero or coward according to the kind of blood in his veins. Healthful surroundings presage healthful bodies, and healthful bodies mean strong, vigorous, hardy constitutions. Mental, spiritual health are simply harmonies, as nature intended they should be. By harmony I mean good drainage, ventilation, adequate and well-distributed light and heat, pure air, pure water, clean earth, a sufficiency of plain and well-cooked food, and such things of beauty as will feed the mental and spiritual hunger. The former things can be attained by the same amount of labor and expense that brings unhealthy conditions, and the result will be strong bodies, tenanted by well-balanced brains that will bring the latter desires. I do not mean that a healthful family could be absolutely happy, but it would nearly approach that sublime condition.

P. L. S., like many other young men, desires to render some service to humanity from which he can gain a livelihood. If he is willing to work hard, and will combine judgment with his persistency, success will wait upon his efforts. I would not urge anyone to make a special study of any one thing, without securing what information is possible of other sciences, for all lead into one great truth. All are related.

## The Grange -

There is opportunity for P. L. S. and for every earnest young man and woman, a greater opportunity than ever before, not so much because there are greater needs as because the world is learning to realize its needs, and to know that in satisfying them there is health and prosperity.

## A Fine Juvenile Grange

The accompanying half-tone represents a part of the membership of Concord Juvenile Grange at Greenville, Darke County, Ohio. Mrs. Emma Hartzell, Matron. Darke County has the distinction of having more Juvenile Granges than any other county in the state. The work was begun by Mrs. C. E. Harris, whose home juvenile, and her own picture, appeared in these columns a short time ago.

Sister Hartzell has reason to be proud of her juveniles. They are bright, healthy, ambitious boys and girls, and the work she is doing in developing them for the important duties of life which comes to everyone prepared to perform them, will tell in years to come. Truly "her work will live after her," to bless her and keep her memory green. Sister Hartzell is not a strong woman. She has nobly performed the duties that fall to the life of a farmer's wife. Yet in her busy days she finds delight in training these young minds to helpful lives.

One of the great sources of New England's power was the town meeting where young and old came together to discuss the weighty problems affecting their times. Out of these grew her orators and her great men. The next generation will pay deference to these young men and women being trained to be "speakers of words and doers of deeds."

The juveniles are so interested in the work that the older members of the family are sure to come to bring them along. They have regular literary exercises and acquit themselves well. In many schools of the state where there are no rhetoricals, and it seems impossible to find time for them, the Juvenile Grange offers opportunity for literary work, and for that training which is essential for speaking wisely and well when emergency arises. "If you are going to wear spurs you must buckle

service commensurate with the honor they have received.

State Master Kegley, of Washington State, reports the grange in flourishing condition, new granges being organized. The lecturer, A. A. Kelly, is a young man who gives promise of a bright literary career.

Petitions by the thousands are pouring in from the small grocers and retail merchants in the small towns against the parcels-post. What are the great mass of farmers doing to secure this great need? How many are sending in petitions and letters?

We cannot overestimate the importance of many of the modern improvements. They are enabling the members of the farmer's family to keep in touch with the world in general. The result is alike beneficial to all who are interested in the nation's progress and welfare.

At one market center, Chelmsford, Eng., practical farmers are brought in contact with teachers of scientific agriculture. It affords a means of conference, and is held in the afternoon of the "weekly market day." These meetings have greatly benefited the farmers.

At a recent meeting of the cotton growers and manufacturers of cotton goods, which was held in Washington, D. C., May 1st and 2nd, the growers insisted upon a "direct deal" and fewer middlemen between the grower and cotton manufacturers.

There are in operation in Germany between five and six thousand engines which are using alcohol as a motor fuel. It has come into general use for running various kinds of farm machinery as well as for light machinery in workshops. Alcohol can be used with much more safety than gasoline.

H. H. Rogers, of Standard Oil fame, indignantly denies that his company has violated the laws of the land. It would seem scarcely necessary to violate any since



CONCORD JUVENILE GRANGE

Beginning at left, lower row: Glenn Hartzell, Gatekeeper; Edna Hartzell, Pomona; Emma Hartzell, Matron; Vernon Kline, Steward. Second row: Clara Norris, Lecturer; Sanford Booker, Master; Hattie Brumbaugh, Secretary; Nettie Kline, Chaplain. Top row: Gertie Brumbaugh, Overseer; Ruth Hartzell, Assistant Steward; Florence Vanscoy, Flora

them on before the opportunity arises" is one of Mr. Garfield's wise sayings. These juveniles are buckling on spurs that will help a nation in time of need. All honor and credit to those helping.

At the last State Grange, State Master Derthick urged more liberal treatment of the Juvenile Grange. Likewise at the National Grange and from many public platforms. Uphold the juveniles. Forget your own petty interests, spites, envies, jealousies and official ambitions long enough to do justice to the membership in the grange. The juvenile will become a power in the state. Help it.

## The Observatory

Bestow official honors on those who can make the office worth the most to the grange. Put only those in high places who have proven by their works that they are capable, trustworthy, and can render

it has written a good many now in force. It seems, however to have become careless, forgetting for the nonce, that it is easier to buy legislatures than face cases in the courts. Poor thing.

The U. S. Department of Agriculture has recently issued a bulletin showing how reinforced concrete may be made and used on the farm in the construction of barns, silos, fence and gate posts, and various other uses.

An advance movement along agricultural lines is the passage by the present Congress of the Adams bill for increasing the annual appropriations for the extension of original research work in the state and territorial experiment stations. This will still further tend to promote the great usefulness of these stations, which have exerted so marked an influence in promoting scientific agriculture.

So long as a few who care more for office than to render service are in power in an organization, just so long that organization will be maintained at an expense far beyond its efficiency warrants. How many of the officers of the various organizations to which you belong have ever rendered service for which they were not paid? How many have made any sacrifice of selfish pleasure for public good? What have they done, save making a valiant effort to hold onto that which they grace not, to merit advancement above the humble workers who really aspire and achieve?

*Mary E. Lee*

## Grange Work in Ohio

The order in Ohio has reason to rejoice over the many evidences of prosperity. Never have the meetings been more interesting. New granges are being organized and older granges are growing in numbers and usefulness. One of the causes for cementing the ties is found in the recent effort to secure re-submission of the bond exemption amendment to the voters. Through grange influence more than 139,000 votes were cast against it at the polls, though it was placed in an affirmative form in the body of three party tickets, and it was almost impossible to vote against it. So thoroughly was the grange roused that it unanimously instructed its legislative committee to use every effort to undo the wrong. The granges of the state followed their instructions by thousands of petitions, letters and resolutions from members and from business men of the cities and towns who realized that they had unwittingly taken a long step toward introducing into Ohio the single tax, a tax on land values only. So cunningly was the matter carried through that the full meaning was not realized till the evil was done. This proved one of the most memorable contests in Ohio.

Doctor Harper, of Summit County, introduced the resolution to re-submit in the House, and with other friends of the measure, worked earnestly for its passage. Senator Rose made a splendid fight for it in the Senate. It is now in the hands of the finance committee, ready to be reported out at the next session. Too much praise cannot be given these gentlemen for their services.

The granges in Ohio should take up the question of taxation for study and discussion. The educational committee will send out bulletins and suggest an outline. We must be ready to meet this proposition in the finance committee, as well as other related propositions. In this connection it should be borne in mind that the individual tax is based on the tax duplicate of the state. If it be depleted the rate must increase. Someone must pay the expenses of government. An example is noted in recent papers. Columbus issued \$150,000 of school bonds, which were resold to a bond syndicate at half a mill premium. The Board of Education has decided to increase the tax levy one mill, while the trustees of the sinking fund will ask for an additional half mill levy. Would not all the people have been more equitably dealt with if this half mill had been paid in a tax to support improvements instead of a profit to people outside? Be not deceived by the bond-buyers' claim that a tax on bonds drives them outside of the state, for there is not a civilized spot on earth where they would not be taxed if found.

Hundreds of thousands of dollars were on the tax duplicate. The burden they dropped must be assumed by others. It is the owner with tangible property who finally assumes the burdens thrown down by owners of intangible property.

The slogan of those who advocate exemption of intangible property from taxation is: "Tax nothing that can or will leave you. Tax nothing that can or will come to you. Tax only that which cannot escape."

Land cannot escape. The history of taxation shows that those the least able to bear the burden carry the largest per cent, while that property which yields the largest income escapes. The grange has tackled a big proposition. It means hard, persistent work. It means patient inquiry into methods of taxation. It means a firm stand and a pull all together for equity in taxation. If we fail it can be no worse for us. But we shall not fail. The cause will bring earnest men and women into our ranks. It will cement the bonds between our organization and others seeking justice for all. It will find a way of more equitable distribution of the burdens of government.

Fraternally,  
F. A. DERTHICK,  
Master Ohio State Grange.



### Too Wet or Too Dry

When the bloom is on the clover,  
And 'tis time to save the hay,  
The rainy season then begins—  
When we want a sunny day.

But the man who "sets" tobacco—  
Who no clover has in bloom,  
Longs to see a somber rain-cloud,  
And the firmament in gloom.  
—George Dallas Mosgrove.

### The Confederate Museum

BY WILLIAM S. BIRGE, M. D.

AMONG the many different societies and associations that have been organized for the preservation of various documents and relics pertaining to the history of our country, particularly that history made during, and immediately following, the great civil war, there are none more interesting and valuable than the Confederate Memorial Literary Society at Richmond, Virginia.

As a gift from the city of Richmond, the society holds and occupies the building and grounds at the corner of Clay and Twelfth streets, which were used by Jefferson Davis during the civil war, and which, in consequence, has always been known and spoken of as the White House of the Confederacy. The building is a grand old structure, and has been put in a thorough state of repair. It is now called the Confederate Museum. Here, carefully classified, and arranged according to states—each Confederate state being accorded a room—are a most valuable collection of documents, pictures, and relics of almost every conceivable kind; regimental flags, haversacks, clothing, and a thousand and one articles donated to the collection by those who held them dearer than aught else in this world.

Among the portraits hanging on the walls is one of Mr. Davis, copied from



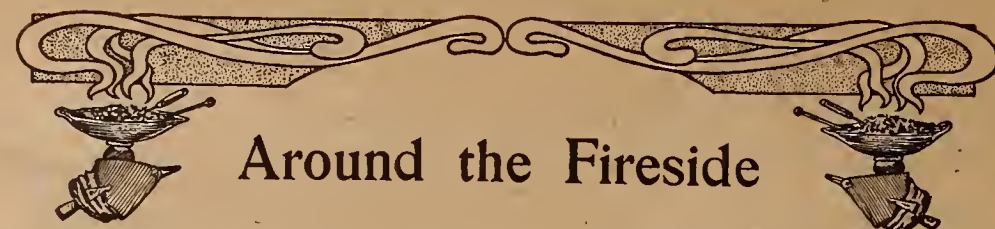
MAYOR SCHMITZ, OF SAN FRANCISCO

Who has risen to the needs of the office beyond all expectations, and whose earnest endeavors toward the relief of earthquake sufferers are receiving the plaudits of the whole nation

the original painting, which is the best in existence of him, owned by the Westmoreland Club. Another, equally as good, is a life-size painting of Miss Winnie Davis, lovingly called the daughter of the Confederacy. She was the recipient of over thirty medals and badges from various societies and orders of the different Southern States. These are displayed in a glass cabinet in the Virginia room. Beloved by all who knew her, hers was a life of self-sacrifice and devotion to her country. Her frail body, worn out by fatigue and exposure in the fever hospitals at Montauk, during the late Spanish war, succumbed to the strain, and she laid down her life for her fellow-man. A wail of sorrow went up from the hearts of North and South alike, when this noble daughter of the Southland breathed her last. A handsome monument, erected to her memory by the Daughters of the Confederacy, stands in the beautiful Hollywood Cemetery at Richmond.

Among the many interesting relics carefully preserved is the last copy ever printed of the "Vicksburg Daily Citizen," bearing the date of July 4th, 1863. The supply of paper being exhausted, this edition was printed on ordinary wall-paper. The following day Vicksburg was taken by the Union army.

The spirit of that time among the ladies of the old Dominion can be no better exemplified than is shown by the history of the origin of some of the regimental flags. That of the 13th Virginia Infantry was made of the bridal robe of Mrs. A.



## Around the Fireside

P. Hill, the silk being dyed of the proper colors, the sewing being most beautifully done by hand. It was presented to that regiment while it was encamped at Hatches Run, in the early winter of 1864.

The flag of the Marion Rangers was made by Miss Catherine E. Whitehead, whose brother was in command of that regiment at the time. The materials of which it was made were contributed by the

On the walls of the Virginia room hangs a water-color picture of the cruiser "Shenandoah," by Miss Rea Watkins, of Richmond. It was on board of this vessel that the flag of the Confederacy was last hauled down. She was cruising in the Pacific on the lookout for Yankee whalers, in August, 1865, when she learned for the first time, from a British ship, that the Confederacy, as an independent government, had ceased to exist.

Quoting from a letter written by her lieutenant, Dabney M. Seales, to a friend, he says, speaking of the Confederate flag which the vessel floated: "It was hauled down for the last time, and that by my own hand." On November 6, 1865, Captain Waddell surrendered the "Shenandoah" to the British government.

The fourteen states forming the Confederacy are all represented; some states occupying a whole room for their exhibit, others a part, and Virginia, which has the largest display, two.

It is impossible in a short sketch to do justice to this truly interesting subject. The stranger visiting Virginia's capital can nowhere spend a day more delightfully than in this museum, and the lover of history can here find the opportunity for research in a special field such as is afforded by no other collection in this country.

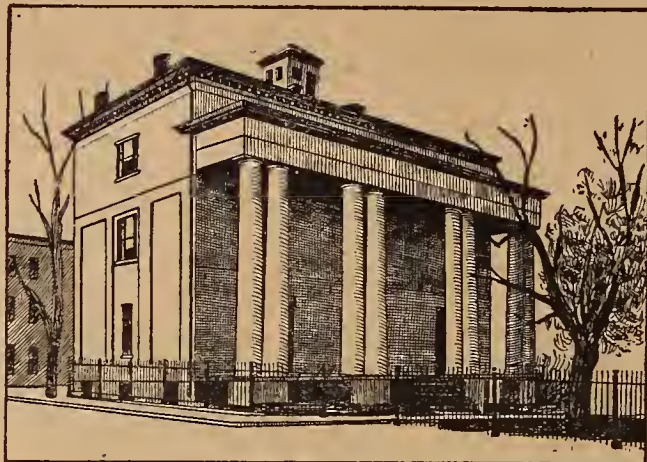
### Italy's King Opens Simplon Tunnel

KING VICTOR EMMANUEL formally opened Simplon Tunnel, the longest sub-mountain tunnel in the world, on the nineteenth day of the past month. The royal train passed through the twelve miles, drawn by a steam-engine, the electric motors not being ready. When in the middle of the tunnel, at a height of 2,200 feet above sea level, the king was heard to exclaim:

"It is a cyclopic work, the result of half a century of study, seven years of work and the expenditure of nearly \$15,000,000."

The ceremonies at Brieg, Switzerland, celebrated an event of international importance. And while traffic will not be begun through the tunnel before September next, it is not necessary to wait until that time to recognize the fact that this great new highway through the Alps is now virtually completed. Indeed, workmen who approached from opposite directions met in the tunnel in February, 1905. The piercing of the Simplon tunnel is regarded as one of the greatest engineering achievements of the age. Both the Italian and Swiss governments are constructing fortifications at the mouths of the tunnel to guarantee against a possible invasion by foreign troops in case of war.

The Simplon tunnel is the fourth tunnel under the Alps Mountains connecting Italy and Switzerland and the northern countries of Europe by direct rail. It is



CONFEDERATE MUSEUM AT RICHMOND, VA.

ladies of Suffolk, Virginia, and it was one of the handsomest flags ever carried by any regiment during the war.

The flag of the 15th Virginia Infantry was made from the bridal robe of Miss Catharine Hatch Morrison.

One of the most valuable contributions from any one individual is a set of maps, descriptive of the battle-fields of Virginia. The lady who owned them, with that pride so characteristic of the Southern gentlewoman, refused an offer of five thousand dollars, preferring to donate them to the society, where they would remain forever an invaluable record of historic interest to future generations.

A most interesting model, in contrast with some of our modern ships of war, is that of the iron-clad ram Virginia, formerly the Merrimac, made and contributed to the Museum by one of her crew.

An effort is being made to get as complete a history as possible of each individual serving in the Confederate army. Thousands of blanks have been sent out for this purpose, and the results have been most gratifying. As fast as they have been returned, they have been carefully placed upon file, until enough have been received to make a printed volume. Already there are some fifty or sixty volumes completed, and the work still goes on, being "just in its infancy," said my informant. These records show that the youngest soldier that served in the Confederate army was Millard F. Morris, who was ten years, nine months old when he entered the service, where he remained until the close of the war.

A beautiful wreath of flowers, taken from Mr. Davis' casket after the funeral, has been most wonderfully preserved by some process known to the Catholic sisters in Richmond, giving it the appearance of freshly picked flowers.

Many of the relics to be seen are striking objects lessons of that memorable time. Here is the table on which the ordinance of the secession of Virginia was signed. The musket and canteen of the private tell of the picket off duty forever; the shells of the "music in the air," so inspiring to the gallant artilleryman. The saddles of Stonewall Jackson and Robert E. Lee bring to mind the last meeting of these two fearless generals before the battle of Chancellorsville. The tattered battle-flags droop above the swords of A. P. Hill and Pegram, two of Virginia's brightest jewels.

The chair which Admiral, then Captain, Buchanan had with him on the Merrimac recalls that memorable battle with the Cumberland and Congress.



TERMINAL STATION OF SIMPLON TUNNEL AT BRIEG, SWITZERLAND

the longest of the four, but will mean a saving of about forty-four miles as compared with the railroad routes by the St. Gothard, Mount Cenis and Arberg tunnels. The work of boring was commenced in August, 1898, at Brieg, on the Swiss side, and at Isella on the Italian side, simultaneously. Some four thousand men were employed on the Swiss side and six thousand on the Italian side, where great

and numerous difficulties had to be overcome. The most serious difficulties that the engineers met were the hot springs and temperature, which at one time rose to 133 degrees Fahrenheit, making a continuance of the work impossible until the engineers found means of cooling the atmosphere. The estimated time to pass through the tunnel, which is 12.4 miles in length, is thirty minutes. The power to be used in the tunnel is electricity.

### Mere Matter of Millions

RECENTLY the Pennsylvania Railroad Company asked for an eighteen-months' loan of \$50,000,000. Inside of two hours, says the Philadelphia "Inquirer," it was all taken and there was not a ripple of excitement. Probably no recent event better shows the extent of the business prosperity of the country. It is immaterial to our point as to what the money was wanted for or whether it was to be properly used. No doubt the company had settled those questions satisfactorily, or investors certainly would not have been so eager.

The point we make is that, coming so soon after the greatest disaster of modern times, one which has called not only for a vast shift of currency from the Atlantic coast to the Pacific, but has made necessary importations of gold which would otherwise have been uncalled for, one of the greatest single demands ever made by a corporation is accepted at once and the incident is closed. So far this year in the neighborhood of \$200,000,000 has been placed in Wall Street for various railway and industrial enterprises. Whence comes the money? From the savings of the people and the natural increase in wealth, which means credit. According to the government statements, the invested wealth in this country increases every year about \$3,000,000,000, as much as the bonded debt of the whole Civil War. This is about \$10,000,000 a working day. This explains



RICHMOND PIERSON HOBSON

Nominated for Congress in the Sixth Alabama District, defeating John H. Bankhead, a Civil War veteran. The Merrimac hero declares for a two-billion-dollar navy that will defeat anything afloat

why the San Francisco losses have made no greater impression. They are easily restored.

The total wealth of this nation is greater than that of any other; the average wealth is greater, and we think that there is no doubt that the individual prosperity of our people is far above that of any civilized people.

### Man's Weaker Half

IT HAS been the popular belief that the left side is weaker than the right, and there is much truth in this. In most cases says the "Grand Magazine," the right arm is decidedly stronger than the left, the bones are larger and the muscles more vigorous.

When we come to consider the lower limbs, however, we find a precisely opposite state of affairs; the left leg is stronger than the right in the great majority of cases.

The simplest way, apparently, of discovering which is our weaker side is to observe which side we lie upon by preference when in bed, as it is certain that we will instinctively adopt the attitude which is most agreeable, or, rather, which causes the least inconvenience.

Statistics and observance go to prove that in about three cases out of four it is the left side which is the weaker, thus giving reason to the popular dictum. Curiously enough, however, pneumonia, it has been noticed, unlike most diseases, usually attacks at first the right—that is to say, the stronger side of the body.





A LESSON IN PLANTING

## The First Farm School in America

By Morris Wade

**A** NOTED man once said that a boy was better unborn than untaught, and one may read in the Talmud that "The world is only saved by the breath of the school-children."

If you will read the history of education in our country you will find that the founders of our great republic made provision for the education of their children as soon as they could after making homes for themselves in America. They founded Harvard College when they had been here but sixteen years, and what is now the Dorchester district of Boston had a free public school almost as soon as it was settled, this being the first free public school in our country.

The history of some of the private schools in our country is no less interesting than that of the public schools, and of special interest is the history of some of the private schools established for the benefit of that very active and necessary and sometimes irrepressible individual, the American boy. It is with one of the oldest and most interesting of these schools that this article has to do. It is on an island of one hundred and fifty-seven acres out in Boston Harbor, something more than a mile from the mainland. The school is a kind of a monarch of all it surveys on the island, for it owns the island and all the buildings on it. There are about one hundred boys in the school, and they are acquiring an education under unusual and pleasant conditions. I fancy that some of them are sorry when they must leave their island home and go back to the mainland to begin the real battle of life.

The school is out on Thompson's Island, and this island has a history worth repeating. That redoubtable man, Myles Standish, trod its narrow strip of sandy beach as long ago as the year 1621. He had with him a man named William Trevour, who had been a sailor on the "Mayflower." They had come from Plymouth on some sort of an exploring expedition, for Standish was of an eager and

daring disposition and wanted to see all that he could of the new land to which he had come. He and his companion named the little island "Island Trevour." Later a Scotchman named David Thompson secured possession of the island and it has been called Thompson's Island from that day to this. Thompson moved to the island in the year 1626, and thus became the first permanent white resident of Boston Harbor. He established a trading post where the Indians could bring their pelts

island a short distance away. This was called Noddle's Island, but it is now known as East Boston, and to-day a subway runs under Boston Harbor connecting Boston and East Boston.

The state of Massachusetts granted Thompson's Island to the new town of Dorchester in 1637, and Dorchester rented it for twenty pounds a year and used the money to pay the salary of a schoolmaster who was to teach "boyes," and the "elders and seven men" were left to decide as

to this it has been the home of the farm school, of which I want to tell you, because it is one of the most interesting schools in our country.

It is and has always been a school exclusively for "boyes," and the "maydes" must look elsewhere for their education. Although a free school, it is a private enterprise and receives its support from the contributions of those who are willing to assist in sustaining it. It had its origin in Boston, where, ninety years ago, some benevolent persons interested in the welfare of the poor boys of that city, were moved to do something toward helping to educate boys whose parents were too poor to send them to school. The school had a very small beginning, and from the first it has been different from other schools. It was undoubtedly the first school in our country to give boys systematic and scientific training in farming, and it was the first school to give boys real training in American citizenship. It has done this so quietly that when the papers and magazines a few years ago had so much to say about the George Junior Republic many people thought this republic was an entirely new thing under the sun. The boys' farm school out on Thompson's Island had its own little republic, its "Cottage Row" village and its mayor and councilmen and other city officers before any other school for training boys in civics was heard of or perhaps thought of.

I think that if you were to visit the farm school on Thompson's Island the feature that would perhaps interest you most would be its Cottage Row. This is a long row of neat little houses in miniature and yet large enough for their owners to occupy. They were built by the boys themselves, and are very attractive in both their exterior and interior. These houses comprise the town of Cottage Row, and the town is governed entirely by the boys. They elect a mayor, clerk, treasurer and board of aldermen every three months. They publish a newspaper called the

[CONCLUDED ON PAGE 15]



TOWN OFFICIALS OF COTTAGE ROW AND CITY HALL

or anything else they had to exchange for beads and trinkets or the articles of civilization some of them were eager to possess. No doubt the island has been visited by many Indians. Thompson had a real and kindly interest in the Indians and always dealt fairly with them. He did not live long to continue his dealings with the Indians, and when he died he left a wife and a baby boy on the island. His widow married a friend of her husband's named Samuel Maverick, who lived on another

to whether the "maydes" of the town should have the privilege of being taught. In the year 1648 John Thompson, the only son of David, came forward and claimed the island as his lawful inheritance from his deceased father, and the General Court decided that the island was lawfully his, and it passed from the possession of Dorchester. It has had several owners since that time, but the present owners came into possession of it in the year 1832 and have held it ever since, and from that day



FARM CLASS AND TEAMS STARTING OUT TO WORK





## A Left-Shoulder Welcome

By Albert Lathrop Lawrence



"WELL, if Uncle won't give me the welcome I expected, I'll take such as I can find in his absence," I said to myself. I had entered the house in too many ways to feel that bolted doors were a hindrance. At fourteen I should have climbed the shed, but at twenty-two one tries the cellar entrance first; and presently I found myself in the darkened dining-room. Everything was just as I had left it to go to college four years before; just as if Hannah Booseley had been in that morning to put things to rights; and when I reflected that it was Thursday, I had no doubt she had.

I mounted the narrow stairs which led to a low chamber; this had been my room, in those early days. At the little window I looked out across the fields. Away on the horizon was the trestle-work of a number of wells which tapped the natural gas far beneath the farm, a source of wealth that had added more to Uncle's bank account than the crops of two generations. My eyes fell on some garments thrown over the back of a chair. There were the heavy calico shirt and the coarse trousers I had worn—now fresh from Hannah Booseley's ironing board, telling me my home-coming had been anticipated. "Ah, if the fellows could see me in those!" I exclaimed, and yielding to a humorous impulse, I doffed my smart clothes and donned the suit which boasted but two pieces.

"Slay me if the things aren't more comfortable than those togs."

I moved to a glass to view the change. "Ha, ha, ha! Haw, haw, haw! I say, feller, what d'ye git fer hen fruit now? You, Mullen Mutton, hev ye husked yer punkins yit?" I ran my fingers through the long, sandy football locks. "Haw, haw, haw! There's a crap as ye orter take the mower to, Country. What d'ye ask a ton fer it anyhow? D'ye think my hoss, Bike, would eat the stuff? It's lookin' a leetle rusty."

Enough of this, and I turned to find a seat on the old hair trunk, where I presently lost myself in a perplexing reverie. Night fell, and still no one came. I resolved to call on old Solomon, a neighbor, and seek explanation, though I had little doubt Uncle had gone to town. Not till I climbed the fence in the direction of the oil wells did I discover that I still wore the coarse garments I had donned in a fit of sport. But what mattered that? Old Solomon would never have known me in the smart clothes I had affected since leaving home.

My friend had been a character in the region for years. In his company I had hunted and fished, tramping the country over and over. Alas! uncle's infrequent letters had failed to tell me of his death, more than a year since. For months the lonely, tumbledown hut by the railroad had been empty. But to-night a dim light burned behind the shattered panes of glass.

My approach was noiseless through the tall grass. Reaching the door, I knocked and then pushed in, wondering to find the entrance closed on a night so warm. At the first sound from me the light was extinguished amid the shuffling of several pairs of feet.

"Hello, Soly!" I called in the dark. "Got company? What's the matter with your light?" The next moment strong arms were thrown about me, pinioning my own arms helplessly to my sides. "Well, I like this," I declared, making no resistance. "On with your game. I'm not much good at a play, but if you'll give me my cue—"

"There's only one," interjected a voice out of the gloom. "Turn on a little of your moonbeam, Stocky," it said, "and let's see what sort of a bird we've got. It's not a fighting cock. He's as quiet as a cooing dove."

"That's what he is, boys," said I—"a homing pigeon shut out of his loft. You are strangers to me; but where is our mutual friend? Where is old Soly? He'll make us acquainted."

One of them approached with a lantern and threw the light in my face.

"Ha! It's a fine fellow we've captured," he declared. "Do get on to the silk tile? But smother me! what is this? The top-knot of a jay, but here we have the breast of a mongrel fowl, and the markings on the legs are no better. And now get onto the toes! Again the points of a thoroughbred. We must have some explanation, my friend."

I could but feel the humor my strange garb aroused. In making the change to the stable clothes, I had retained my top

hat and good shoes. Some tramps bent on sport at my expense, I thought, and resolved to stand a reasonable amount of teasing, but if they went too far, I would show them a football trick or two, and take to my heels.

"You're a tramp!" declared Stocky. "Curse me if you haven't been lifting goods in the city."

"A tramp if you will, gentlemen," I returned, "in which case birds of a feather have flocked together. But even tramps may choose their company, I suppose, and I assure you had I known I was unwelcome, I should not have entered under your roof. With your leave I will bid you good evening."

"Confound your fine words," cried Stocky "hold on!" And he stepped between me and the door.

I saw a crisis approaching in the attitude of the three, who now surrounded me. I tried boldly to walk by Stocky, but was seized and roughly pushed into the middle of the room. I made a feint at my nearest assailant, turned quickly and sprang upon Stocky with all my weight, bore him to the floor, and ran over his prostrate body. But at the very moment of seeming success, the fallen man seized me by the foot, hung on grimly, and after a desperate struggle they succeeded in binding me to the post which supported the roof.

"Curse your cooing dove!" muttered Stocky, nursing a battered jaw after the rough and tumble.

In the struggle there had been a desperate note, which seemed to discredit the idea of a joke. Presently my captors went outside, where they held a long and heated argument, of which I caught enough to know that it all devolved on my unwelcome intrusion. I was certain they were law-breakers of some sort; counterfeiters was the form which appealed to my imagination. I had heard the clink of tools as they hurriedly put away some things on my entrance, and later all had cast about to see if aught were left to disclose their business.

If these men were what I thought, and if they believed I had gained knowledge which would convict them, what would be my fate? Would they add murder to their crime, in the hope of concealing all? Old Solomon's hut was a fitting place for such a deed, and Stocky had seemed desperate enough for anything. I lived a thousand anxious moments in that next hour.

The eleven-forty express passed going north. Soon after Stocky entered the hut, carrying the lantern. He came straight to me. I had tried to prepare for the worst, yet I felt myself shrinking from such fate. However, above all was the thought, how could I most certainly and quickly kill this fellow and make good my escape, were my arms free?

With sarcasm and profanity, Stocky expressed a hope that he found me comfortable. He examined the cords which bound me to the post, and seemed satis-

perspiration ran down my face in discomforting, sticky lines. My eyes had in a measure become accustomed to the gloom, so I could make out soft patches of varying degrees of dark, which I recognized as objects in the room. Through the dusty windows I saw the stars thinly veiled. I wondered what time it was getting to be.

Then the noise of voices outside gladdened me. Help was coming. I called loudly, fearing to be passed undiscovered. "What's the matter, Birdy?" inquired a voice from a form which suddenly darkened the doorway. The tone belonged to one of my tormentors.

"I say, fellows," I began in a half note of entreaty, "what's this for? When are you going to let me go? Isn't it enough?"

"If for nothing else, curse you!" returned Stocky, "it's for the sore jaw you gave me. Shut up your blab, baby, or I'll put you to sleep! Get your coat, Mack, and let's be off."

An alarm of fire in the distant city floated on the still night air.

"There! they've discovered it!" sibilated Stocky.

"Sorry I can't keep you company!" Mack called hurriedly over his shoulder, and then I was left again, a lone prisoner in a pitiable position.

How many hours would pass before help came? As I reflected stars beyond the window disappeared and a faint glow suffused the sky. I remembered the fire alarm, and had no doubt my assailants had started a conflagration, probably to cover a robbery. What a story I could tell the police if they would but come to my relief!

Slowly day began to dawn. It became plain that old Solomon had not inhabited his hut for a long time. The straw from his bed was scattered on the floor; his dishes were broken and the pieces lay about. Beneath the window was a dirk-like knife, to possess which one moment I would have given worlds.

From time to time I tried to wear the bands in two by rubbing them on the post to which I was bound, but the years had so smoothed the surface that I simply tired myself out and accomplished nothing. Wearily the long day passed. Once a robin came and perched in the doorway, and later a calf cropped the grass just beyond the opening, giving me some diversion. With painful slowness the shadows moved around to the east. Was I to spend another night in that torturous position? Hot tears ran down my face, my head fell forward on my breast; I was ready to despair. When I lifted my eyes after that bitter moment, I discovered a dog's muzzle in the doorway.

"Here, sir!" I called feebly, in coaxing tones. "Good dog! good dog! Lie down; lie down, sir!"

The beast groveled at my feet, leaped into my face and licked my pale, grimy cheeks, ran around me, fawning and wagging his bushy tail. He was a fine animal, of collie blood, and but little more than out of his puppyhood. He stopped his demonstrations, assuming an attitude that questioned my strange behavior. Why that queer, awkward posture? why no hands extended in friendly pats? The dog barked.

"Yes, sir, you would help me if you could. Where is your master, old fellow? Fetch him! fetch him, sir! Fetch him!"

The collie stood alert a moment and then darted through the door. I heard him running up and down outside, expressing himself in short, sharp barks. Presently he returned, fetching a bit of wood, which he laid at my feet.

"Oh, you poor fool!" I sighed. "It's your master I want. Go, fetch him!"

Again the dog started for the door, but after a moment returned and fell to fawning about my tired legs.

"No, you don't understand. You poor brute! I'm the fool for thinking that you could. Well, your company is some consolation."

My eyes fell on the dirk-like knife. The dog had fetched a chip; why not that?

"Here, sir!" and I looked him in the face, and then turned my eyes on the knife; "fetch it!" Back and forth my eyes went from dog to knife, and I repeated the words—"Fetch it! fetch it!"

Away the collie sprang—but in the wrong direction. "No; here, sir; see here!" and the eye motions began again. Bewildered by strange behavior the animal bounded about the hut with sharp, questioning barks. After repeated bid-dings, at last he brought a tattered glove that had lain not more than six inches



"I saw my efforts at last crowned with success"

"Let's see where he hit you," said his pal. "Fuss and nonsense! You aren't killed. A little more jaw won't hurt you. Well, my gay bird," the speaker continued, addressing me, "a pretty fight you put up. Where did you learn that sort of thing? Where's your kit, and what's your layout? Come, unravel a bit of yarn. We've got a couple of hours on our hands and will make as fine an audience as ever listened to ghost story. Where are you from, and where are you bound for? What do you know?"

"I'm from the outside of this black hole," was my reply, "and I'm bound to a stout post within. I know that a pretty set of villains did it; and if they would face me, one at a time, in a fair fight, I'd put the three to sleep so soundly no trumpet call would wake them. Stocky is my only lay out, but I'd add two more and finish the kit, if I had a chance."

"He's been to school," was the comment of the third man.

It was not clear why they detained me.

fied. Once he raised a heavy pry as if to strike me. He was an ugly-looking fellow. "I would, if your hands weren't bound," he declared, with an oath.

"You might loose me," I said, with a sickly smile that was a taunt despite the quick movement of my heart.

"What's keeping you, Stocky?" his pals called impatiently, and one put his head in the door. "Leave the kid alone," he said. "He's harmless. Good-night, Birdy; put your head under your wing, and go to sleep."

Then I was left alone in the pitchy darkness. I followed their retreating steps till they died away, and nothing remained save a gentle wind in the trees without, and the sound of pumping at a distant well. Now I began serious efforts to free my hands, writhing and twisting and straining till the cords cut deep into the flesh. After a half-hour spent vainly trying to reach a pocket in hopes to find a knife, I remembered that all my effects were left behind with my fine clothes. The



from the knife. "Ah! good dog; good dog! Now fetch it! fetch it!" And the eye directions were patiently resumed.

Pleased with this reception, the animal was quick to bring something more, and as the knife was the most prominent object remaining, I saw my efforts at last crowned with success. But now that the knife lay at my feet, my problem was only half solved. The cords bound about my wrists left free play of the hands and fingers behind my back. Kicking the knife close to the foot of the post, I swung around and slipped to my knees, bringing my hands over the dirk-like blade, which my fingers, groping about, presently seized.

A slow sawing on the cords began now, but proved tedious work, for I labored at sore disadvantage. Perhaps a cord would be half severed when the dirk would slip from my uncertain grasp. When I regained the knife, it was impossible to tell whether I resumed sawing in the same place or somewhere else; indeed, I was lucky if it were on the same cord, and more than once I cut my arms. However, after a long, weary effort I felt one band give way, then another, till presently I was free. Exhausted with lack of sleep and the forced labors of the last hour, my tired body rolled upon the floor.

The collie came and licked my face. Slowly life returned. I rose and stumbled to the door, and stood looking about. My eyes fell on a small valise which the men had left in their hurried departure. Mechanically I stooped and picked it up.

"Throw up your hands, young fellow; three good guns cover you!"

I started, my first thought of my old tormentors; but instead, I was confronted by three blue-coated policemen.

"You fellows always get around when it's too late to be of service," I said contemptuously. "What are you pointing your guns at me for? I'm not your fire-bug. They left twelve hours ago."

"Put the bracelets on him, Sandy," commanded the officer in charge, never heeding my words. "Are there any more in there?" he asked of me. My jaw must have dropped in momentary stupefaction.

"Not by a long sight!" I exclaimed, backing away from the irons. And I tried to explain the situation.

"That bluff won't go, my friend," responded the officer. "We were a little too soon for you. You haven't all your honest farmer clothes on yet." He smiled, glancing at my tan shoes and top hat, the latter battered in the struggle of the night before. "Come, take the cuffs without a fuss. Your game is up. This grip of yours will tell no lies, but a pretty story, or I'm mistaken."

"The grip isn't mine!"

"Probably not; no doubt stolen, too," was the laconic answer.

I was too nearly dead to parley further, and submitting to the inevitable, was led away a prisoner now under the law. But that was really the end of my troubles; for I had but to send for my uncle, who came and set every thing right. He knew me at once, in spite of the four years' change; and as the three criminals were captured the next day in a neighboring city, I had no difficulty in establishing my story when arraigned in court.

#### The First Farm School in America

[CONTINUED FROM PAGE 13]

"Beacon." They have a bank. They meet and discuss questions having to do with civics. The mayor sends forth Thanksgiving and other proclamations, and all the affairs of Cottage Row are conducted with as much dignity and decorum as are the affairs of the town or city in which you live. I suspect that the town is not wholly free from the "wire-pulling" that obtains in other city elections, but the elections and town meetings are free from any wrangling or open discourtesy. It is not allowable for the boys to become discourteous, even in their play. The managers of the school would like to have the boys remember the lines of the old poet who wrote:

Lessons are over, work is done;

Out, out, my boys, and we'll have some fun. Cricket or rounders, or prisoner's base, "English and French" or a "hare-and-pound" race!

Only remember our fun must be Tempered by gentle courtesy!

One can have a sort of rough-and-tumble time of it and yet refrain from actual discourtesy. The boys prove this every twenty-second of February, when they have their great snow battle. Nature seems to bear in mind that the boys must have snow for this annual fight, and there is always snow enough on the island for the event. A snow fort is built, the hundred boys at the island school form into two companies with regularly appointed generals and captains, and the fight for possession of the fort wages long and fiercely and with "no end of fun."

Who are these boys? They are the sons of parents who cannot afford to educate them in the public schools. They are not bad boys. The school is not a reformatory and no bad boys are received. A boy is not admitted under ten years of age, nor is he admitted beyond the age of fourteen years. The parent or guardian of

the boy must sign a paper relinquishing the boy to the school until he is twenty-one years of age, but the boy may be returned to his parents at the age of fifteen or sixteen years if they are able to give him a proper home. If such is not provided otherwise a suitable home is found for the boy when his education on the island is finished. The boys at this unique school receive not only a common-school education, but they are taught farming on scientific principles. Every boy works in the fields or orchards or gardens of the farm. The boys work in the barns and the dairy. They are taught how to exterminate that pest of New England, the brown-tail moth, and they fill up the holes in which stagnant water collects and mosquitoes breed. They run a printing office and must even overcome their disgust for feminine occupations, and sweep, dust, make beds, wash, iron, cook and do every kind of household work. They have entire charge of the laundry, and one boy makes all of the bread for the institution. They plow, sow, reap, hoe and make hay. There is no chance for Jack to become a dull boy through idleness at this school.

The boys at this farm school are in constant touch with nature, and this is good for any boy, no matter what his life work is to be. It is a good thing for a boy to get "near to nature's heart," for he will thus receive impressions helpful to him in any walk of life. A prominent educator has written these true words: "It is better to train a boy to observe, to understand and to work with nature in the furthering of her beneficent purposes; to arouse an enthusiasm for productive activity by the use of his hands in the shaping of wood and the working of metal; it is better that he should love and care for all manner of living creatures; that he should learn self-government and respect for personal and property rights through actual activities of municipal and commercial life, and to use his books only to enable him to get a broader grasp of the theory of life than a wholly concrete training would give him—if such training is better than the venerable traditions of education which will keep the great majority of boys and girls in a routine of book study for nearly the whole of their school hours, then the Thompson's Island Farm School must rank high in the educational world, and if the solution of the problems that are there being worked out in a decidedly original way are as successful as the present indicates, the result may have a decided influence upon the future development of our educational system."

Of course this school has its baseball

and football teams. It has a remarkably fine band. It has everything that boys care for most in school life. It has a pretty rigid system of discipline, but the time is sure to come when the boys will know how valuable this has been to them.

The boys are allowed to row across the water and visit their friends in Boston now and then, and their parents and friends may visit them one day in each month during the summer and autumn months. Sometimes the entire school goes in a body to some entertainment in Boston, and the boys get up some very interesting entertainments of their own on the island. There is a good entertainment hall in the main building, and a band concert was being rehearsed the day I was on the island last winter.

The boys have a hilarious time on the Fourth of July. I suspect that the racket they make on this day could be heard away over on the mainland if one had sharp ears. The band plays our national airs and the boys get up "horrible" or "freak" parade. Of course they have an extra good dinner, and no work is done excepting the necessary "chores" and household duties. It is about the merriest day of all the year on the island.

When the school was established on the island nearly one hundred years ago there was but one tree on all the one hundred and fifty-seven acres of the island. Now there are hundreds of trees, including an orchard large and productive enough to supply fruit for the use of the entire family of more than one hundred persons. No school in the country gives its students a more thoroughly scientific course in agriculture than is given the boys at this farm school. Here the boys learn by doing—not by reading and seeing, but by taking hold with their own hands and doing every detail of farm work. Hon. James Wilson, Secretary of Agriculture of the United States, has visited this old and famous farm school and has given it his unqualified indorsement. Indeed, with the exception of the school at Tuskegee, Ala., there is no school in our country at which the pupils study agriculture in the thorough and systematic way in which it is studied at this island farm school. The capacity of the school is limited to one hundred and there is always a waiting list of boys eager to enter the school. Boys of the ages of the students are quick to appreciate and make use of all that appeals to them as practical, and nothing could be more practical than the system of education at the farm school, many of whose graduates are now among the most useful men of the world.



ON THE dashing Conewago, which in Iroquois means "Place of the Rapids," there are sedate artificial pools of crystal clearness, but small area, which are made consequential by being misnamed lakes. Of these, Lake Conewago, edged by the forests of Mt. Gretna, is the principal one. The rays of the setting sun retreat over the great rolling parade-ground as if tired; and the tree tops pass them upward, tier by tier, until they take flight from the mountain summit.

Great eels, blue as the lake-water, wriggled in the bottom of the skiff as I rowed to the landing after an hour's fishing. Far in its wake something was swimming. "It is too small for a muskrat, too big for the head of a diver, not long enough for a water-snake," I said to myself.

My gun lay in readiness. Turning the boat, I rowed back to see what sort of an animal it was that was evidently crossing the lake. To my astonishment I found it was a chipmunk. Why should it swim from the sodded shore of the camp-ground to the forest across the lake when it was but a short, solid way around? Had it been chased into the water? There was no pursuit in sight. Was it migrating? Hardly; it was the springtime—the wrong season of the year to go southward, as it was going.

It was plainly too tired from extra effort made to get out of my way. Rowing alongside, I placed the blade of the oar under it; it rested upon it, and I drew it into the boat. Fearlessly, I thought sorrowfully, it looked at me. It did not move from the flat oar-blade. The black stripes down the red of its sides were sleek and water-laid. He shone as if freshly painted. His face was sharp, drawn and melancholy. I felt guilty, for his eyes seemed to remonstrate with me for having rescued him. After a brown study, he wiped the

water from his face with his fore paws, sneezed, carefully preened his tail, then quickly plunged into the water and disappeared. "Suicidal," I exclaimed. "Driven to desperation by a successful rival; perhaps robbed of the remainder of his winter store of nuts; perhaps demented." I had known insane animals before. In a short time he came to the surface, several feet from the boat, and again swam in the direction he had been going. Was he bent on an evening call to some fair one of his kind? Impossible. He would have gone trim, neat, dry, jaunty, not downcast and dripping.

Resolving to rescue him from an untimely grave, I again got him on the oar, lifted him into the boat, and quickly enveloped him in my handkerchief. Then I put him in my coat pocket.

In my rustic cottage in the forest were cages for birds and animals I wished to study, or make pets of. Giving him a bed of the inner stripping of bark, a section of curled bark for a bedroom, and a supply of nuts, I watched him. He quickly retreated within his bedroom. After several moments he ventured forth and examined every inch of his cage for an avenue of escape; then, being convinced of his captivity, he sensibly carried every nut within his chamber, and I heard his sharp teeth cutting for a supper. I knew then that he had resolved to live.

In a few days he became quite tame, coming at call and taking food from proffering fingers. But he never allowed any one to touch him. His cage was close to a much-used door. When all was quiet he cut many capers. When the door was opened he gave a shrill "chip-chip," and whisked into hiding. In an instant his bright eyes were peeping to discover what had disturbed him. All squirrels have great curiosity, and the hunter takes advantage of this. When startled they leap

upon the bole of a tree. They place the tree between themselves and the disturber. The hunter runs to within shooting distance. Soon the squirrel comes cautiously to get sight of him, and meets his death in consequence.

My chipmunk was active and wide awake all day, but went to bed at sundown. Bright lamplight did not coax him from his napping. In the morning, as soon as the sun's rays reached and entered his cage, which was about eleven o'clock, he tore his bed to pieces, carried it into the patch of sunshine, spread and shook it up carefully, and allowed it to sun for an hour or more. The busy, nervous, systematic way in which he did this was amusing; but more amusing was the loading of his mouth with it, until he looked as if carrying a miniature haystack, and his carrying it back to his bark bedroom. Load after load was carried in this way. He was fond of red. When strips of bright colors were given him, he always selected the reds and wove them into his nest.

He was quite a dandy. Every hair of his coat must be licked, combed with his claws, and laid scrupulously sleek. His face was washed with care, his mustache polished, and his tail always most carefully dressed.

He was an odd character and a great favorite. He was different in many ways from the dozens of chipmunks that sported outside the cottage, or sat still as their favorite stumps, deceiving every one by their ventriloquial "chips." They were the ventriloquists of the forest and the most active of the day squirrels.

The captive was longer and narrower in face. He loved butter, sweet potatoes, peaches, the spicy teaberry, preserves and rice pudding. When fed kernels at the wire front of his cage, he stowed them in his cheek-pouches until they were puffed

far beyond the disfigurement of mumps or toothache. While in captivity he never gave ventriloquial exhibits. He concealed nuts in the corners of his cage, and filled his bedroom to the ceiling. He spent far more time than the wild ones in cleaning himself, and I never saw a free chipmunk air and sun its bedding.

Observation of the captive chipmunk interested me in the habits of the many wild ones about. Several of these had their dens under stumps and rocks close by, and were readily observed. They are great eaters and indefatigable hunters. A box of chestnuts stood on the kitchen floor. They soon discovered it, and so daring did they become in their thieving that they came through open doors and windows, darted across the floor, loaded a nut in each cheek-pouch, one in their front teeth, and actually scampered among our feet to get off with their booty. They had no fear of traps, neither did they gain experience by being caught in them. Four times in one day I trapped the same handsome male.

The homes of the chipmunk are deep and distant from the surface opening to them. Digging out a chipmunk means long-continued and abundant exercise. In their galleried homes are their beds and storerooms. Here they hibernate, and bring forth their young in May. The young do not leave the burrows until they are able to take care of themselves; neither do these squirrels climb trees to any distance. They are, literally ground-squirrels.

For a year my captive was a favorite among the household pets. Then he accidentally escaped. He remained near the cottage, came after food placed for him, but declined to renew intimacy. Whether he thrashed his rival, or won his love, or punished the robber of his store or not, I never knew. CHARLES McILVAINE.



### The Summer Invalid

BY HILDA RICHMOND

IT is much harder to cook for a sick person in summer than in winter, for the cold weather enables the housekeeper to keep broth and other foods several days without spoiling, while in hot weather every sort of food decays in haste. Then, too, it is hard to get fresh meat every day for the nourishing broths, and killing chickens in the midst of extra duties is not to be thought of except once a week, unless some kind neighbor lends a hand. It is always a good plan to have a little book ready for such emergencies, so that new dishes can be prepared without much trouble, for nothing discourages the weary invalid like the same things served day after day. It is also well to lay in a supply of articles for the sick person at the beginning of the illness, so that every



EASILY MADE PICTURE-FRAME

day the appetite may be tempted by dainty foods. A small jar of beef extract, a box of thin wafers, a little tapioca, some fine prunes and a supply of lemons should be in every home where sickness finds its way, and these are not expensive at all.

There are many little things that should be served often, and these are simply prepared. Make your list as complete as possible and keep it near the kitchen table. The dishes given below are all simple and delicious. Most of them can be prepared by an intelligent child and should be served in dainty dishes to tempt the appetite of the sick person.

**CELERY SOUP**—Cut the tender white parts of two stalks fine and boil in one and one half pints of water till tender. Season with salt, add one small teaspoonful of beef extract and four tablespoonfuls of rich milk. Have a bit of dry toast or several crackers hot in the oven and pour the soup over them. Serve at once. Do not use pepper.

**TOMATO SOUP**—In cooking ripe tomatoes dip out half a pint of juice and strain to remove seeds. Add a little salt and one teaspoonful of beef extract with the slightest bit of flour and butter rubbed together with a little water to thicken. This soup should be smooth and creamy in consistency without being thick. Serve with crackers or toast.

**RICE BROTH**—Have three or four tablespoonfuls of rice cooking in a pint of water until tender. Season and add half a teaspoonful of the extract and two or three leaves of parsley. This is delicious and nourishing. The rice should be thoroughly boiled.

**CHICKEN BROTH**—Dip out half a pint of rich chicken broth when cooking a nice fat hen and season with salt. Add a tablespoonful of cream and a little well-boiled rice, or slightly thicken with a pinch of flour rubbed smooth in sweet milk. This should not resemble gravy, but only be slightly thicker than the clear broth.

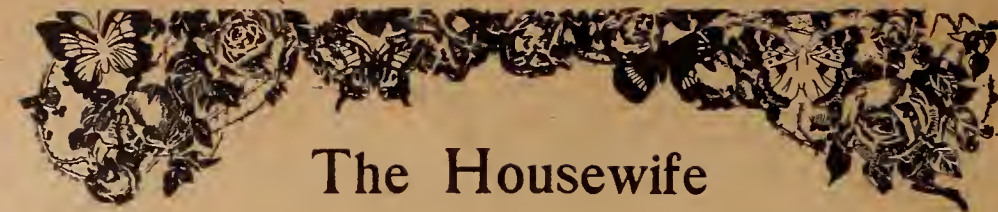
**QUICK POTATO SOUP**—To one pint of boiling water add one teaspoonful of beef extract and a little salt. Add one or two tablespoonfuls of well-beaten mashed potatoes and a tiny lump of butter, stirring all the time until perfectly smooth. A little celery salt or a bit of the celery heart, minced very fine, improves this soup.

**COCOA AND WAFERS**—Make a cup of cocoa and pour it over two toasted wafers or crackers in a deep bowl. As soon as cool enough serve. Toast may be used, but is not as good.

**POACHED EGG ON TOAST**—In summer eggs are apt to become tiresome to the patient, but occasionally one may be served on a round of toast. Cut your toast with a biscuit-cutter, butter and slip a soft egg quickly upon it. Never boil poached eggs, but drop them into boiling water and pull back on the stove, where they will become like jelly in the hot water.

**CREAM TOAST**—Put thin toast in a deep bowl and pour over it hot milk. Sprinkle with sugar and serve. Do not use too much butter in spreading the toast or it will be greasy.

**GRAPE JUICE**—Wash, stem and squeeze fresh ripe grapes. Simmer without boiling until the juice may all be extracted. Let stand for a day and then pour off into a granite vessel or stone crock. Bring to



## The Housewife

boiling point, strain through flannel bag and seal up what is not to be used at once. To sweeten when used add a little sugar and water boiled together into a thin syrup. The juice may be sweetened to taste when made by adding sugar just before canning. This should always be kept on hand for use in cases of sickness.

**CREAM TAPIOCA**—Drop one teaspoonful at a time of quick tapioca into half a pint of boiling water until it is slightly thickened. Stir to keep from sticking, and add two teaspoonfuls of white sugar. When clear remove from fire and let it cool a little. Add one or two drops of vanilla and four tablespoonfuls of rich cream, beating to make a smooth mass. Serve while slightly warm. Should be like thin soup when properly made.

**FRUIT TAPIOCA**—Prepare as above and have ready some well-cooked smooth apple-sauce or stewed peaches or currant jelly to pour the tapioca over. Serve while warm.

**TOMATO JUICE**—Save some of the juice from well-cooked tomatoes and season with salt. Strain and set in a cool place till needed, then heat and add a small amount of sugar. Serve as a drink.

**BAKED CUSTARD**—Beat together lightly two eggs, two tablespoonfuls of sugar and one pint of rich sweet milk. Flavor to taste and bake in individual cups. Serve very cold. Delicious if the patient suffers from thirst.

### A Whorl of Shaving-Paper

WANTING a new design for my shaving paper—which is a necessity at our place, where the men do their own shaving—I evolved the following.

I first got my stock of tissue paper together, then found a round piece of pasteboard, which, by the way, was an advertising card, quite heavy and with a plain gray back, with a silk cord to hang it by. From a sheet of deep red crepe tissue I cut a strip five and a half inches wide and long enough to form a full circle when one edge was gathered and drawn tightly together. I did the gathering with a needle and thread, the same as if it had been cloth, using coarse linen to insure its hold-

caught in the extreme point of the fold that was the center of the square, and the long side of the sections were laid against the foundation, looking, as my little girl said, like a fancy cake with a hole in the center. I filled this center hole with eight squares, four of each color, alternated, having a small square clipped out of their points to make a better finish.

These last were folded straight across instead of diagonally as the others. Of course, the center was put in more as a finish than anything else, but the paper is large enough to be used like the rest.

This is an entirely new way of arranging shaving-paper, is easily and quickly done and not at all expensive. More than all, it is very pretty, and will be just the thing to present to the father, brother or husband.

### An Artistic Picture-Frame

TO MAKE the illustrated frame I cut two seven-inch squares from a sheet of dark green felt-finish cardboard, then, with a small pinking-iron, scalloped the edges all around one and the corners of the other. The center opening is three and one fourth inches across—just large enough for a cabinet head—and is also pinked around, but the iron was reversed and only a part of it used, to make the serrated edge finer.

I used a common glass tumbler to mark the circle, cutting it carefully with a knife blade.

The holes were made with an ordinary steel punch, which I prefer to my patent one, because it works truer. The outer square is lined entirely with a pale-pink paper, the other only at the corners, giving a pleasing touch of color to the whole frame. The two squares are fastened together—as illustrated—with mucilage, leaving a space at the bottom to insert the picture, which is better to be unmounted.

A piece of stiff cardboard pasted to the back square gives the desired stiffness, while two holes—made with the punch—in it admit a narrow ribbon to hang the frame to the wall.

This frame is easily and quickly made

The whole quilt is unique in style, beyond any I have seen elsewhere, from the eighteen-inch center, which has two hundred and forty-two tiny triangles put together so the light and dark alternate, making a bewildering maze if you attempt to follow the design. And there is really a design to it, but so intermingled that you lose yourself in tracing it out. Four half-squares each composed of sixteen smaller ones, sewed to each side of the first square, make the twenty-four-inch one—all made of the half-squares.

The next section around this is composed of eight churn-dash-star blocks, alternated with oblongs containing each thirty-two small squares. The star blocks are made entirely of three-cornered pieces excepting the center, which is a solid square. This is as far as great-grandmother got with the patchwork, the bal-



SHAVING WHORL

ance was put together by grandmother, and, like the center, is all of half-squares, arranged, light and dark, like an old-style worm fence, bordering the entire quilt.

Aside from the piecing the scraps have a charm all their own. The colors are as fresh as ever, notwithstanding the many years since they were dyed. The patterns are a study, so varied that one can but wonder how there came to be so many at that early day. Some look very like the designs used by the Navajos in their blankets or the Aztecs on their pottery, while others are in delicate, tasty styles, not unlike some of our best to-day. The texture of the fabric is equally diversified—while some of it is much like the duck now used for dresses, there are others as fine as the finest cambric, with a gloss like silk, which time has not dimmed.

To go over this quilt of many colors is like taking a peep into the early days of our country, and we fain would trace each scrap back to the hand that wove it, yet in the backward journey we might find so much of sorrow that we would wish we had stayed in our own age and built romances, instead, over the bits that were a part of the life beyond our ken. Back to its home amid the household treasures we lay the old quilt, which holds within its folds many a romance we may never read, but will ponder over each time we bring it out to the light of day. We, like those who have treasured it all these years, will pass on and leave it to others, who in their turn will wonder over the odd bits of cloth put together with such tiny stitches, just as we are doing to-day. Time has not aged it as it has those who have owned it, nor has strength failed or color faded; again the work of man's hands has stood after its maker has perished.

HALE COOK.

### Cold Soap

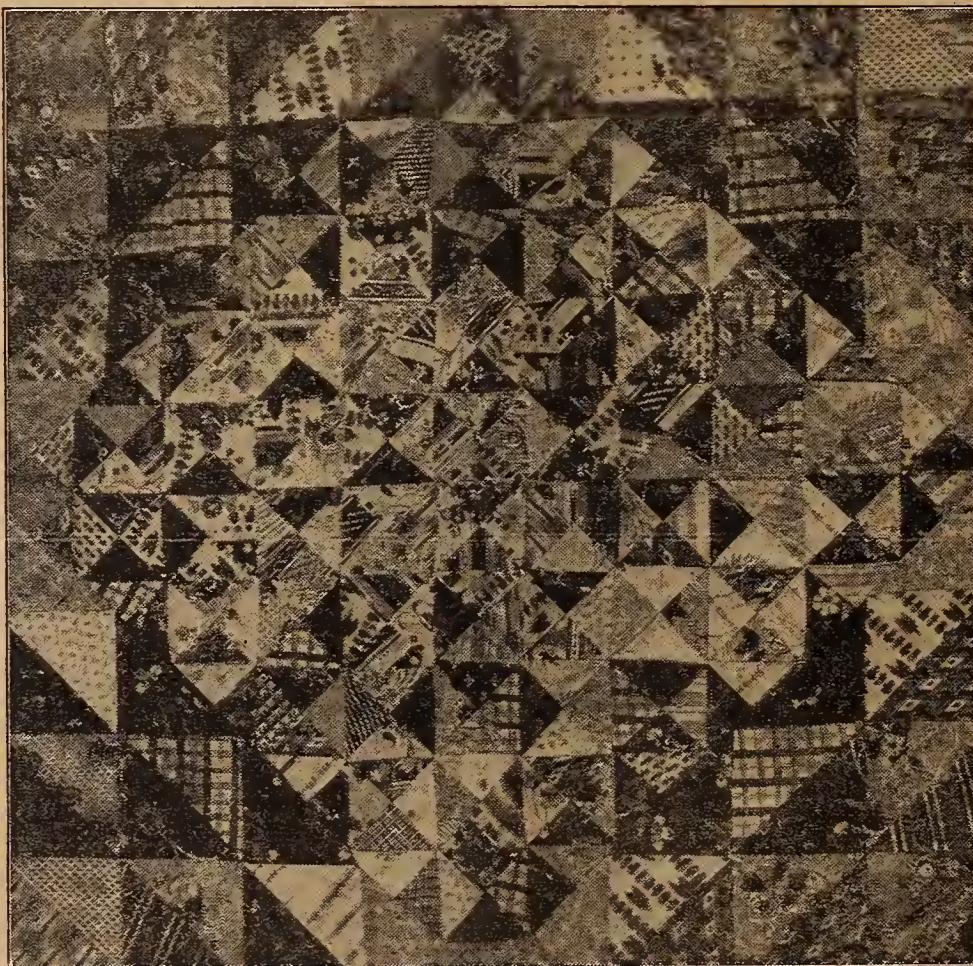
DISSOLVE a box of lye in three and one half pints of cold water, stir slowly into five and one half pounds of clean melted grease. Stir ten minutes. Pour into mold and let set twenty-four hours, then cut into squares.

### Good Things to Know

**ONIONS AND MEAT**—All white meats gain in flavor from a delicate onion admixture with the gravy. The onion should be grated and put over the meat before it has just finished roasting and then blended by basting. In this way one avoids the burnt onion slices which sometimes result from other methods, and which have, in a way, caused the addition of onion to be regarded with disfavor.

**SHABBY CHAIR COVERS**—To renovate leather chair covers, rub the leather first with a little hot milk. Melt some beeswax in hot water, add sufficient turpentine to make it the consistency of thin cream. Rub this on the covers, and polish with a soft cloth.

**TO FRESHEN CUT BREAD**—Bread that has been cut in slices and become stale may be freshened by laying the slices together and folding a damp napkin around them; put the napkin in a paper bag and place the bag in a hot oven for fifteen minutes.



AN OLD-TIME QUILT

ing in place. This I fastened to the center of the round card, on the picture side, giving me a foundation for my paper with a plain back. The outer edge of the crepe tissue I pulled out straight to form a ruffle. I now took two colors of plain tissue-paper, white and green, and cut sixteen seven-and-a-half-inch squares from each, which I folded diagonally, from corner to corner, then twice more, making an eightfold three-cornered piece of each square.

These I strung, alternately, on strong linen thread and caught them to the center of my foundation in such a way that any one piece could be pulled out without loosening the others. The thread was

at very little cost, and a group of them make a very pretty decoration for the wall, especially in a girl's room, where they may hold the photos of her school-mates or of her favorite authors.

Any color of cardboard may be used to suit the wall on which they are to hang, grays, with deep pink or red lining, would be appropriate for almost any situation.

### An Old-Time Quilt

IT WAS Great-grandmother Patterson that pieced the odd old quilt, of which the illustration shows the twenty-four-inch center, all of which is in three-cornered pieces, or half-squares.



## A Lesson Needed in this Day

BY SARA H. HENTON

WHAT is sadly needed in this busy, progressive, rushing age is for housewives and mothers to learn thrift in the expenditure of strength as well as in the spending of money. The best managers in household affairs are those who can secure for themselves every day an hour or more of that healthful repose so necessary to every human heart. I know many busy housewives who manage to decrease their household expenses temporarily by overworking themselves, but this is poor management. I have tried this and found that the cost in doctors' bills soon swallowed up the little you would save, besides the break-down, etc. Good management (so considered) may sometimes degenerate into penuriousness, but in itself it is far removed from it. A woman may reduce her expenses and decide that her family can live off of less food, yet she may cut off what is most nourishing perhaps, while the true economy is learning what foods to furnish that will yield the most nourishment for the least money. I can call to mind a few housekeepers who were considered fine managers that were also home-makers. Wonderful women they seemed to me, who secured for themselves time for self-development, and best of all they found hours for contemplation and spiritual needs. The problems of life are less difficult when a soul has time for repose and rest. Family life and happiness depend upon the home. Some persons seem to think because a woman is a good manager and can calculate and count loss and gain so accurately that she must be masculine. Ah, no! Many such women are thoroughly feminine, and are home-makers and rear to manhood and womanhood large families of children and do so from a limited income, yet surrounded them with every needed comfort, instilled into them refinement and courage, and fitted them to go out into the world and perform their duty.

Ah! How many of us can recall a sweet, gentle face that made our homes a veritable paradise, who practiced self-sacrifice and devoted the best of herself to her loved ones. The vast majority of mankind look upon home as a place of refuge, a place where the mind is at peace, and where comfort reigns, no matter how humble the abode may be. It is the common ground where all women, rich or poor, high or low, must be equal, the only distinction here is founded upon excel-



PANSY MAT

lence. A lesson sadly needed in this day is the woman's duty to herself, especially mothers. Learn to refresh your overtaxed and depleted forces and it will give courage to encounter the worries which attend all housewives and mothers.

## Cord Holder

THIS pretty novelty for holding cord is made by making a muslin bag ten inches long and five inches wide; gather at top and place a pretty doll head in bag and draw muslin tight around neck. Fill with cotton, leaving room for a ball of cord in end. Catch each corner of bag with thread to keep ball in place. Then dress the bag as a doll in yellow crêpe paper and the head with a fancy bonnet to match, trimmed in purple violets and purple ties. Hang to gas-jet by yellow ribbon and let end of cord hang below the dress to use when needed.

M. E. W.

## Work-Box

THIS convenient work-box is made in shape of a maltese cross when opened. When closed it forms a pretty fancy work-box with handle. Cut five inch square cardboard for bottom of box; cut to match a perfect maltese cross to fit center square, then cover inside with blue and white dresden silk and outside with plain blue silk. Cover all pieces and finish edges neatly. Then lay together and stitch around square centerpiece, to make it lay smooth; add on two sides little gathered pieces of silk for bags for thread and scissors. Use two-inch piece of card-



## The Housewife

board or leather for handle the length of box when opened. Cover this neatly and sew on the outer edge of opposite sides. Have an eyelet in each corner of all four pieces, running a blue silk cord with blue tassels on ends to draw open and close as you wish.

M. E. W.

## Pansy Mat

MERCERIZED cotton in shaded yellow, and shaded purple for the pansy border, and dark green for the center is the material used.

Crochet chain of six stitches and join.

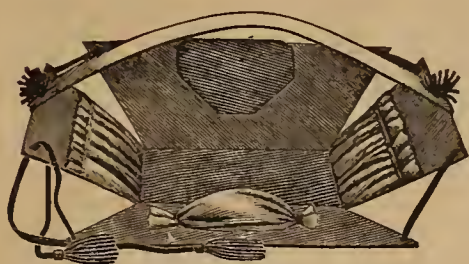
1st row—12 double crochets in the ring.

2d row—Widen in every other stitch.

3d row—Crochet and widen here and there until the mat is four inches in diameter.

For the pansies, which are placed alternately, yellow and purple around the mat for a border, crochet a ring of 4 stitches.

1st row—Double crochet twice, chain



WORK-BOX

of two sts, dc twice, chain 2 sts—repeat until there are five of the double crochets and five spaces.

2d row—Crochet 12 dc in a loop, catching down with a single crochet between the two double stitches of the preceding row; repeat in next loop.

Make 10 sts in each of the remaining three loops, this makes two large scallops and three small ones.

3d row—Crochet into the same loop as the two large scallops another the same size, so that the second will lay over the first, as the petals of a pansy. Edge these four large scallops with a picot edge of chain of 3 stitches in every stitch. Repeat for ten pansies, five purple and five yellow. Sew them to the green mat for a border. You will be surprised how natural they appear. This makes an attractive mat for a bonbon dish or small vase.

M. E.

## Crocheted Yoke for Undervest

THOUGH quite elaborate in appearance, the crocheted yoke for ladies' undervest is not difficult to make. Mercerized cotton of any make, or linen thread may be used.

It is made up of twenty-six crochet medallions joined and finished with a simple scallop and ribbon casing for the top and a plain edge for the lower edge. Of course the factory finish must be removed.

For the medallions:

Make a chain of 6 stitches, and join in a ring.

1st row—Crochet 16 dc with a stitch between.

2d row—One single crochet between each of the dc on the preceding row. A stitch and 2 dc in the space.

Repeat for the next medallion, catching into the first; when on the last row around repeat until the twenty-six are joined in a circle.

Of the twenty-six medallions for the yoke divide as follows: Four for each shoulder, ten for the front and eight for the back.

3d row—Crochet along one edge of the medallions catching into the loops with a double or triple stitch as required, in order that an even edge may be kept.

4th row—Make two dc in every space of the preceding row.

5th row—Alternate two dc and a single crochet between the double stitches of the preceding row.

6th row—Make a shell of six dc in the space between the double and single stitch of the preceding row.

7th row—Four dc with a stitch between caught in the center of the shells, two stitches catching in the middle of alternate shells with a single crochet.

For the lower edge, begin at the back shoulder four, crochet across the four medallions with double and triple crochet, as the distance may require, in order to keep the edge straight; make a chain the size for the armhole, catch it in the same stitch you began in, turn, and crochet with

double crochet around the armhole chain three times. The fourth row is a scallop same as around the top of yoke. Crochet across the front with double and triple stitches and in the end of the tenth medallion make the chain for the other armhole, catching it into the end of those allowed for the back and crocheting across the shoulder, and make the armhole chain, same as before. Then finish across the back.

8th row—Crochet around the yoke with single crochet a plain row by which it is sewed to the vest.

The number of medallions will vary according to size of vest.

M. E.

## Household Hints

When making salad it is easier to mix the oil, salt and pepper together, adding the vinegar lastly, giving a few rapid beats to make the emulsion perfect. When dressing is poured over the salad, it should be served at once, or the green lettuce will become tough.

A SUBSTITUTE FOR RAIN-WATER—As a substitute for rain-water, the following method for making hard water soft is useful: Set a laundry-tub full of water, into which has been put two pounds of common soda, to stand all night. In the morning pour off the water (leaving the white sediment at the bottom of the tub) and it will be perfectly soft. The simple plan of boiling water has the effect of softening it somewhat, but is not nearly so efficacious in counteracting "hardness" as the method advised.

If you have a covered pan in which to roast meat do not open it to baste the meat. Keep covered from first to last. The idea is that the pan is full of steam, which penetrates the fiber of the meat. If desired to brown the outside, leave the cover off a short time in a quick oven.

Fruit to be used in cake should be well dried before being used. Wash the day before you want it, dry on tins, and keep warm all day. Always flour before using.

Brass that is badly tarnished may be cleaned by dissolving in ammonia a small piece of scouring soap. Apply this to the surface with a soft brush and then polish well with chamois skin.

A little pipe-clay dissolved in the water employed in washing linen cleans the



CORD HOLDER

dirtyest clothes thoroughly, with a great saving of labor and soap. It will also improve the color of the linen, giving it, if used regularly, the appearance of having been bleached.

Carrots and onions are better in cookery if soaked in cold water for twelve hours before using to draw out the strong flavor. Carrots should always be cut in slices instead of cubes, because the darker outside part is richer and better in flavor than the lighter center. If served in cubes, some would not get the choicer part.

TO CLEAN LOOKING-GLASSES—When a mirror of any kind becomes smeared rub it with a soft cloth or rag dipped in methylated spirit. This will remove all grease, and a polish with a leather will make it beautifully bright again with very little trouble.

## Steamed Puddings

PRUNE PUDDING—Required: Six ounces of bread-crumbs, six ounces of suet, half a pound of prunes (weighed after stoning), two ounces of sugar, three eggs, about a gill of milk, one ounce of sweet almonds. Chop the suet and prunes finely, using the crumbs to prevent them sticking. Mix the crumbs, suet, prunes and sugar. Beat up and add the eggs, also the milk. Add them to the dry ingredients, and mix them well. Let the mixture stand and soak for one hour. Put into a greased mold, twist a piece of paper over the top, and steam the pudding steadily for three hours. Have ready the almonds, shelled, and cut into long shreds. When the pudding is turned out stick it over with the almonds, and serve it with any good sweet sauce. Dates or figs may be substituted for prunes.

GOLDEN PUDDING—Required: Two eggs, two ounces of butter, two ounces of caster sugar, two and one half ounces of flour, one teaspoonful of baking-powder, rinds and juice of two oranges. Cream the butter and sugar till quite soft. Beat in the eggs one by one very thoroughly. Mix the flour, baking-powder and grated orange rinds, add these very lightly to the eggs, etc.; strain and mix in the orange juice. Divide the mixture into small, well-greased dariole molds or cups. Cover with a piece of greased paper. Steam the puddings for half an hour, or till firm and spongy. Turn them out carefully, and serve with a corn-flour sauce, well flavored with orange.

CLEVELAND PUDDING—Required: Six



CROCHETED YOKE FOR UNDERVEST

ounces of bread-crumbs, two ounces of flour, four ounces of suet, two ounces of raisins, two ounces of currants, two ounces of peel, one gill of milk, one gill of treacle one egg. Clean and stalk the raisins and currants. Chop the peel and suet. Mix all the dry ingredients. Beat up the egg, add it to the treacle, and stir these thoroughly into the dry ingredients. Put the mixture into a well-greased basin, cover it with a piece of greased paper, and steam the pudding for at least three hours. Turn it out into a hot dish, and serve it with sweet melted butter sauce.

VERMICELLI PUDDING—Required: One pint of milk, two ounces of vermicelli, two eggs, two tablespoonfuls of caster sugar, nutmeg, vanilla or cinnamon to taste, a pinch of salt. Put the milk into a pan to boil. When it does so, shake in the vermicelli and simmer it in the milk till it is quite soft and clear looking. It will take about ten minutes. Add the sugar, and let the mixture cool a little before adding the eggs. Separate the whites and yolks of these. Beat the latter to a stiff froth. Stir in the yolks thoroughly, then add the whites lightly. Flavor the pudding carefully, and pour it into a well-greased basin. Cover it as usual with a greased paper. Steam it gently for about thirty to forty minutes. Turn it out carefully, and serve at once with a hot wine or jam sauce.

## Items for Housewives

When beating any mixture stand in the fresh air as much as possible that pure oxygen may be incorporated.

Tomatoes are most hygienic when not cooked.

Grease the upper inside edge of the pan with butter; then milk, cocoa or anything of this kind will never boil over.

The sooner clothes are washed after being soiled, the easier they wash.

When ham is hard and salty soak it—sliced—in milk over night. Next morning it will be sweet and tender for breakfast.

Dust carved furniture with a soft paint brush, it reaches into every crevice better than cloth.

A raw egg beaten up with a little lemon juice will strengthen and clear the voice.

Herbs to be used for seasoning should be gathered just before they blossom.

Keep a dish of fresh water in the sick-room to absorb impurities; change often. Rub flat-irons with sandpaper to make them smooth.

A poultice of powdered slippery elm is very valuable for burns, scalds and bruises.

Whalebone that has become bent can be made as good as new by soaking it in tepid water for about half an hour.

The cane bottoms of chairs can be made tight again by moistening the cane well with very hot water and washing off, so that the cane becomes completely soaked, after which the chair must be set in the open air or in a strong draught to dry.

MRS. MACKINTOSH.



**To the Boy Who Graduates**

**S**o you are going to graduate this June, are you, my boy? Good for you, and the more honor with which you graduate the better. I hope that none of you will simply "pull through," and that you are not saying to yourselves or to others that you "don't care, just so you get a diploma." If you are that kind of a boy your diploma ought to be a sort of standing rebuke to you because you did not do better. No boy should be satisfied if he has done nothing more than just to "pull through." And now that you are out of school and that diploma with its pretty blue ribbon is yours, what next? That is something in which your friends are greatly interested. They have their eyes upon you and are eager to see what you are going to make of that education that ought to mean so much to you. What do you suppose I heard of a this-year's graduate saying not long ago? He was asked what he proposed doing when he "got through" in June, and he said that he thought he would "loaf for a year and just kind o' look around a little." A boy who comes out of school with a willingness to "loaf" for a year isn't very promising. He ought to be at the high tide of his enthusiasm with that diploma in his hand, and his parents have a perfect right to expect him to put his own strong young shoulder to the wheel and to assume the burden of his own support. As for paying father and mother back for all the self-sacrifice and the money they have given so freely—well, most fathers and mothers do not ask any better return than that their boys make the most and the best of the education that has been given them.

I like much the spirit of a manly young fellow who is graduating from a college this June. Last fall his father bought him a nice suit of clothes and an overcoat and everything else he needed with which to make a respectable appearance during his last year at school. The father is a prosperous man, and yet when the young fellow put on his new clothes for the first time he said,

"Well, father, these are the last clothes I shall ever expect you to buy me while I live unless I am sick. If I can't earn my own clothes and my own living with the education you are giving me I ought to go hungry and in rags. I'm going to take care of myself after next June."

How many of you who graduate this June have that same ambition? How many of you have the fine and strong spirit of independence, the independence that makes you unwilling to be a burden to others? How many of you feel that you have no right to ask father and mother to meet any part of your expenses longer? And how many of you are facing the future bravely and cheerfully with confidence in your ability to earn your own living and with an eager desire to do so?



## The Young People

Happily for the growing good of our country, not many of our American boys are at all anxious to spend time in "loafing" after they leave school. The trouble with some of them is that they are too eager to leave school and become wage-earners before they have half the education they should have. They put too high a value on mere money and what it will give them in the way of pleasure. The best education of our day



FAST FRIENDS

develops a kind of character in the boy that makes him feel that the acquiring of money is not the first essential of the successful life. If your education, my boy, has done all that it should have done for you, it has sent you forth from the school or college feeling that you want to be a man and play a man's part in the world.

You will surely be wise if you take to heart the words of the writer who has said: "Be a man; a great, strong, willing, kindly man—calm in the glory of a fearless heart, serene in your trust and belief in God, the Father of the world, and so sure of the justice of his providence that you go about your daily business free from those silly cares which corrode and ruin manhood itself. Be a man—that is the first and the last rule of the greatest success in life. For the greatest success in life does not mean dollars heaped in bank-vaults nor volumes written, nor railroads built, nor laws devised, nor armies led. No, the greatest success is none of these. The supreme success is character."

There are plenty of people who will tell you that the world is going to the bad just as fast as it can. It is not true. One proof of it is that never before in all our history as a nation was so much stress laid on the value of character, and never were there so many men and women of the highest integrity of character in our country.

J. L. HARBOUR.

### The Little Fisher and the Big Fish

**T**HE maskinonge shown in the picture on this page weighed as much as the child, each tipping the beam at thirty pounds. The picture was made by A. F. Rowley, of DeKalb, Illinois, who also took the big fellow that hangs lifeless on the cabin wall. The little fisher is the son of Clarence Buck, a famous fisherman of the Manitowish country, in Wisconsin. Along both sides of the right of way of the Northwestern Railroad is one of the famed game fish regions of the Badger State.

J. L. GRAFF.

### The Daring of Hannah Dustin

**T**HE tales of pioneer women never lose interest with their retelling. The women of the early days of our country so very often found it necessary to be bold in their enterprises. When the Indians who dwelt at the source of the Merrimac River and in the region round about, after a great freshet on the fifteenth of March, 1697, came down the river and attacked Haverhill, Hannah Dustin was confined to her bed with an infant only a week old. Her husband, catching the alarm from the field, fled to the house and consulted his wife on the course he should pursue. She calmly told him to leave her and her infant to their fate, and to make his escape, if possible, with her other children. He sent seven of the children on a path through the woods, on the way to the garrison, and mounting his horse he followed in the rear; with his musket he kept the pursuing Indians at bay, until he found his charge in a safe place. Before Mr. Dustin reached the garrison, the Indians returned and captured his sick wife and Mary Neif, her nurse. They, with other captives, took up their march by order of the savages, for the north. After they had traveled a few miles, the Indians found the infant troublesome, and taking the child from the arms of the nurse, dashed its brains out against a tree. Mrs. Dustin was feeble and wretched, but this outrage nerved her soul for every enterprise. She wept no more; the agony of nature

drank the tear-drop ere it fell. She looked to heaven with a silent prayer for succor and vengeance, and followed the infernal group without a word of complaint. They were marched through the wilderness for several days, till they came to a halt on an island in the Merrimac River, about six miles above Concord, New Hampshire. There they were placed in a wigwam occupied by two men, three women, seven children of theirs, and an English boy who had been captured about a year previous, at Worcester. The captives remained there till the thirtieth of the month before they planned escape. On that day the boy was requested by Mrs. Dustin to ask his master where to strike "to kill instantly," and the savage was simple enough to tell, and also instructed him in the art of scalping. "At night, while the household slumbers, the captives, each with a tomahawk, strike vigorously and fleetly, and with division of labor—and of the twelve sleepers ten lie dead; and one squaw the wound was not mortal; one child was spared from design. The love of glory next asserted its power; and the gun and tomahawk of the murderer of her infant, and a bag heaped full of scalps, were choicely kept as trophies by the heroine. The streams are the guides which God has set for the stranger in the wilderness; in a bark canoe the three ascended the Merrimac to the English settlements, astonishing their friends by their escape, and filling the land with wonder at their successful daring." Mrs. Dustin had the happiness of meeting her husband and seven children, who had escaped from the house before the savages entered, and the honor of a very handsome present from Colonel Nicholson, Governor of Maryland, as a reward for her heroism. The people of Boston made her many presents. All classes were anxious to see the heroine, and they found her as modest as brave.

### Humanity Rewarded

**T**HE old saying that a redskin never forgets a kindness is strikingly exemplified in the story told of the settlers in a little village on the Piscataqua River, near the present town of Dover, in the state of New Hampshire. For a while the aborigines and the whites were on amicable terms, and the former not infrequently paid the latter a friendly visit. On one of these occasions a pappoose was suddenly seized with illness and its mother was obliged to remain several days. She found shelter and accommodations with a widow, who received her cordially, and nursed the feeble infant as her own. When, after the lapse of years, the bow was bent and the hatchet raised against the settlement where the widow resided, the Indians placed a strong guard around her house; and, although the butchering was terrible, she and her family were unharmed.



Photo by A. F. Rowley

THIRTY POUNDS A PIECE



From Copyrighted Picture by Underwood & Underwood

HELLO, CENTRAL!



## The Brookside

I wandered by the brookside,  
I wandered by the mill;  
I could not hear the brook flow—  
The noisy wheel was still.  
There was no burr of grasshopper,  
No chirp of any bird,  
But the beating of my own heart  
Was all the sound I heard.

I sat beneath the elm tree:  
I watched the long, long shade,  
And, as it grew still longer,  
I did not feel afraid;  
For I listened for a footfall,  
I listened for a word—  
But the beating of my own heart  
Was all the sound I heard.

He came not—no, he came not—  
The night came on alone—  
The little stars sat one by one,  
Each on his golden throne;  
The evening wind passed by my cheek,  
The leaves above were stirred—  
But the beating of my own heart  
Was all the sound I heard.

Fast, silent tears were flowing,  
When something stood behind:  
A hand was on my shoulder—  
I knew its touch was kind:  
It drew me nearer—nearer—  
We did not speak one word,  
For the beating of our own hearts  
Was all the sound we heard.  
—Richard Monckton Milnes.

## Giant Grape-Vine

THE garden-like cove known as the Carpenteria Valley, half encircled by a picturesque range of the Santa Ynez Mountains, lies in lyre shape by the great sea whose tides smite the strand into ceaseless symphonies. In this valley stands the world's greatest grape-vine, a wonder of its kind acknowledged by everyone fortunate enough to pay it a visit. Santa Barbara County is entitled to distinction for the production of three giant vines, among which "la Vina Grande," at Carpenteria, easily holds the first place as to size and fruitage.

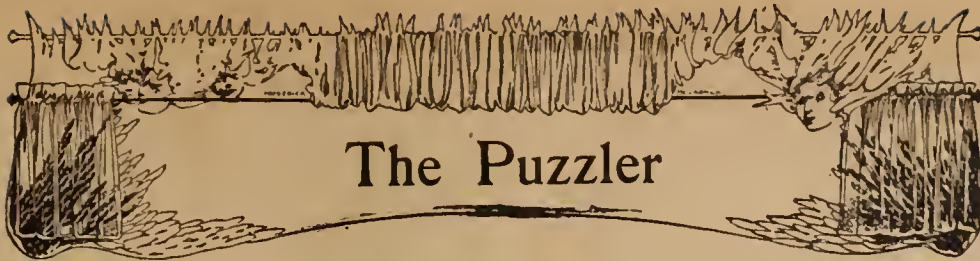
In the Montecito Valley, ten miles to the northwest, two out of this peerless trio have been grown. One was removed to the Centennial Exposition in Philadelphia, in which city it remains on public exhibition. The other died a few years ago, and its trunk was placed on exhibition in the Chamber of Commerce in Santa Barbara. Each of these two attained only two thirds the magnificent proportions of the one now thriftily growing at Carpenteria.

Sixty-four years ago a Spanish woman named Joaquin Lugodi Avala planted a small twig of the Mission grape. She watched and tended it with jealous care through its early growth, and in later years kept it neatly trellised and trimmed. Unwittingly she was rearing a prodigy that was to eclipse everything of its kind in all the civilized world.

Some twenty years ago the vine was purchased with a plot of ground by Jacob Wilson, who has since denied it further compass by keeping it constantly pruned. Its present measurements, however, are by no means uninteresting. At the ground the giant trunk measures nine feet nine inches in circumference. Five feet above the ground it has a girth of seven feet eleven inches. At a height of six feet the trunk branches into five divisions, which radiate in different directions. These five branches have a combined circumference of fourteen feet eleven inches, the smallest measuring two feet, and the largest four feet three inches. Within a radius of eighteen feet from the trunk there are twenty-nine subdivisions or runners, each measuring from ten to twenty-two inches in circumference, together with countless smaller branches. The longest runner at present reaches the enormous distance of seventy-six feet.

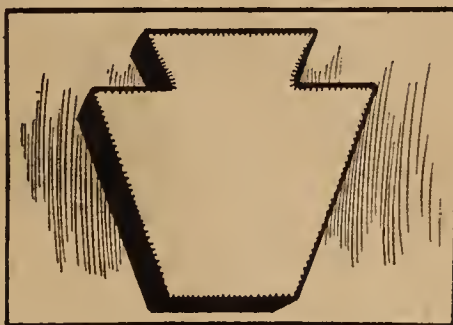
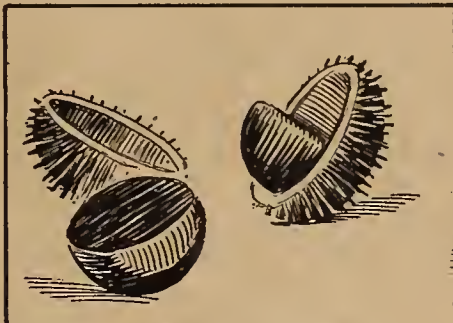
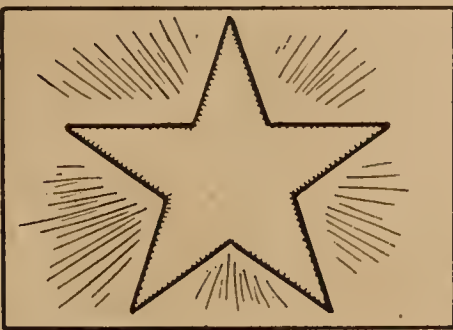
The trellis, which is entirely overspread, is one hundred by one hundred and ten feet in dimensions, embracing an area of approximately one fourth of an acre. A company of eight hundred people is said to have at one time found shade beneath the umbrageous branches.

The vine is still in a healthy state of growth, and if permitted to do so bids fair to further enlarge itself by many square rods. The largest crop ever yet actually weighed out was ten tons, in 1895. This did not include miscellaneous contributions to visitors and friends of the proprietor. A common estimate of the entire yield was 24,000 pounds. The larger clusters are reported to have weighed from nine to ten pounds each. Various exposition associations have tendered handsome sums for the possession of this queenly planting, where its ripening clusters may still be kissed into juicy sweetness by the autumn suns of southern California, and the gentle breezes of the sea may still whisper among its leaves as in the days when Spanish lovers met to woo and be



## The Puzzler

Commonly Known Nicknames of Six States of the Union are Pictured Below



Answer to Puzzle in the June 1st Issue: Farmer, Carpenter, Blacksmith, Letter-Carrier, Artist, Plumber

wooded beneath the tender boughs of the young "Vina Grande."—Los Angeles Times.

## The Portion

Five kisses hath my dear love given me;  
Like blessed beads I say them o'er and o'er.  
Slow, sad and perfect, as such kisses be,  
And mine for evermore.

Five kisses that I count as five sweet years;  
One when we met as laughing friend to friend;  
One when our sorrow shook us both with fears;  
Three kisses at the end.

Too late I came into the banquet hall.  
The feast was done; yet, on my bended knees,  
I found the crumbs—five kisses—that is all.  
I thank Thee, Lord, for these.  
—ANONYMOUS.

## Lightning Eccentricities

THE gathering of statistics concerning the loss and damage from lightning is an interesting work that has been assigned the students of the agricultural college at Guelph, Ontario. The value of lightning-rods and the desirability of having trees standing near buildings is shown by the facts thus far obtained.

Summarizing the last annual report from the college, the "Free Press," of London, Ontario, gives out the following novel facts:

As to the question does lightning strike twice in the same place, the report says that there may be warrant for the idea in the fact that where lightning ever strikes there is very little left to be struck a second time; but where a barn has once been struck and another barn has been erected on the same site, that second barn is just as likely to be struck as the first, and in some instances, more likely.

The statistics compiled by the college show that in the five years since 1901 ninety-four trees were struck by lightning, as follows: Elm, 28; pine, 17; oak, 9; basswood, 7; maple, 7; ash, 4; poplar, 4; cedar, 3; apple, 3; hemlock, 2; willow, 2; spruce, beech, chestnut, balsam, hickory, butternut, and fir, 1 each.

The number of cattle killed in the same period was 114; sheep, 64; horses, 46; pigs, 4. Total, 228.

Barns struck, 179; other buildings, 66.

## How Bees Embalm

BEES can embalm as well as any undertaker. If a worm, or a roach, or any insect blunders into a hive the bees fall upon him and slay him with their stings. To get the corpse out would be a difficulty, therefore, embalming it, they let it remain.

The embalming process of the bees consists of covering the corpse with a hermetic coat of pure wax. Within this air-tight envelope the body cannot in any way contaminate the hive.

When a snail blunders in among the bees they cannot kill him on account of the protection of his shell. So they embalm him alive. They cover him, shell and all, with snowy wax. He is a prisoner whom only death releases.

## Freedom and Love

How delicious is the winning  
Of a kiss at love's beginning.  
When two mutual hearts are sighing  
For the knot there's no untying!

Yet remember, midst your wooing,  
Love has bliss, but love has ruin;  
Other smiles may make you fickle,  
Tears for other charms may trickle.

Love he comes, and Love he tarries,  
Just as fate or fancy carries;  
Longest stays, when sorest chidden;  
Laughs and flies, when press'd and bidden.

Bind the sea to slumber stilly,  
Bind its order to the lily,  
Bind the aspen ne'er to quiver,  
Then bind Love to last forever.

Love's a fire that needs renewal  
Of fresh beauty for its fuel;  
Love's wings molt when caged and captured,  
Only free he soars enraptured.

Can you keep the bee from ranging?  
Or the ringdove's neck from changing?  
No! nor fetter'd Love from dying  
In the knot there's no untying.

—THOMAS CAMPBELL.

## Man and His Servant, Beast

THE deep affection which dumb animals sometimes develop for their masters was shown the other day in a despatch from Pittsburg. It appears that John Devanny, an aged farmer of Buttermilk Hollow, had decided to commit suicide, and

having fastened a rope to a beam in his barn he went into a stall to bid good-by to Old Bill, a horse that had served him faithfully for sixteen years. Mr. Devanny put his arms around Old Bill's neck and made pathetic demonstrations, which appear to have aroused the horse's suspicions, wherefore he turned to watch closely when his master, having sobbed a last farewell, stepped back to the place where the rope was dangling, and mounted a soap-box.

Then it was that the affection of Old Bill was put to the test. It was necessary for him to act quickly if at all. Did the faithful horse hesitate or question himself? Apparently not, for we are informed that with one well-directed kick he knocked his beloved master through the weatherboarding of the stable, after which it was necessary for the old man's people to carry him home and put him to bed. There he had time to think the matter over and repent, hence he now lives to bless dear Old Bill. But this is not the only case of animal gratitude that we have lately had to consider. Here are some more despatches that indicate how deep the affection of animal for man may be:

From Colchester, Michigan, comes the story concerning Alexander Whittlesey, a well-to-do farmer, who was endeavoring yesterday afternoon to get through a hedge fence on his place about one mile east of here. His clothing became entangled among the thorns to such an extent that he was unable to move. He was wearing a red flannel shirt at the time of the accident, and it may have been the color of this garment that attracted a swarm of bees which happened to be passing near him. In any event, the bees swooped down upon him and would no doubt have stung him to death if it had not been for Duke, his faithful Jersey bull. Duke was quietly browsing in an adjoining pasture when Mr. Whittlesey got fast in the hedge, and the cries of the man, after the arrival of the bees, attracted the bull's attention. Seeing the peril of his master, faithful old Duke pointed his tail toward heaven and with a loud bellow charged upon the pestiferous insects. In his haste to free Mr. Whittlesey from his uncomfortable position Duke missed some of the bees and flung his master through the hedge, after which he—the faithful bull—tried to get through himself to make sure that the bees did not further violence. He was unable to force a passage, but fortunately it was not necessary for him to render any further assistance, as the insects, having been thoroughly frightened, went on to the woods. Mr. Whittlesey's physicians think he has a chance to recover, although he will be badly disfigured. Duke is receiving unstinted praise for his splendid manifestation of affection and esteem.

## The Village Smithy

No more the roan and chestnut, the piebald and the gray  
Pound their iron hoofs upon the smithy's floor;  
No more the gig and buggy, the buckboard and coupé  
Stand broken down and helpless at the door.

He'll pump you full of ether with an auto sorter laugh,  
He's fixtures ready-made to mend the fake.

If your tire has collapsed he'll swell it for a half,  
With perhaps another dollar for a break.

No more he talks of "hoss" as he stands upon the green  
And waits the auto trav'ler on his way.  
He's an artist now in wind, and he's happy and serene,  
For he's pumping, pumping dollars all the day.

—Horace Seymour Keller.

"The rolling stone gathers no moss," quoted the man who had never been outside his home country.

"True," rejoined the globe trotter, "but it acquires an enviable polish."—Chicago Daily News.

## No Returns

WHEN a young woman attempted to coquette with Ezra Trumbull, or to draw a compliment from him, she was sure to have what Mr. Trumbull himself called "up-hill work."

"My brother Fred has a sore throat; he's had it for nearly a week," said Miss Minetta Green, whom Ezra was solemnly escorting home from the social evening. "If it hadn't been for that," she added, with a slanting glance from under her broad hat toward Mr. Trumbull's impassive features, "I'd not have had to trouble you to see me home, Mr. Ezra."

"What we need in this town," said her companion, "is another doctor and a spryer one. The way trifling little ails linger on under Doc Williams is enough to drive folks crazy."—Youth's Companion.



# THE FARM AND FIRESIDE

## Practical Fashions for Every Day

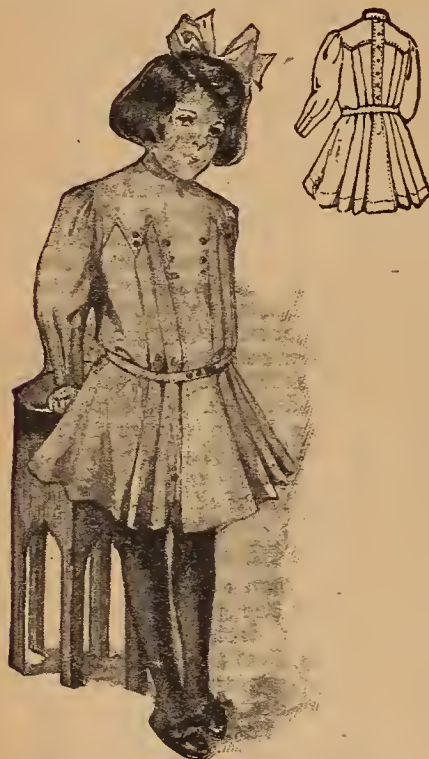
June 15, 1906



**No. 778—Child's Bolero Dress**

Pattern cut for 1, 2 and 4 year sizes. Quantity of material required for medium size, or 2 years, two and one fourth yards of twenty-two-inch material, or one and one half yards of thirty-six-inch material, with three eighths of a yard of tucking, and one yard of all-over embroidery for trimming

**T**HE feature of this pretty little dress is that it is made with a bolero of eyelet embroidery trimmed with ribbon bows. The frock has short kimono sleeves of the same material as the bolero. The round yoke is of tucking, and the dress is finished with a deep hem. The bolero is edged with lace, and at the top it is finished with beading through which ribbon is run.



**No. 771—Plaited Dress with Yoke**

Pattern cut for 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, six and one half yards of twenty-two-inch material, or four and one half yards of thirty-six-inch material

Linen suiting or any of the good-wearing wash fabrics would look well made up in this one-piece dress. The little gown has two deep plaits at each side, back and front. In the back the yoke is scalloped. At the front it is pointed, and extends to form a broad plastron which reaches to the hem of the skirt.



**No. 770—Boys' Overalls**

Pattern cut for 2, 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, two and one half yards of twenty-seven-inch material, or two yards of thirty-six-inch material



**No. 773—Misses' Tucked Shirt-Waist**

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, three and one half yards of twenty-two-inch material, or two and one half yards of thirty-inch material

**No. 774—Misses' Circular Skirt with Tucked Flounce**

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, seven yards of twenty-two-inch material, or five yards of thirty-inch material

Here is an entirely new idea for a shirt-waist. The model is tucked, and made with an adjustable U-shaped chemisette, to which a turn-down collar is attached. The waist buttons in double-breasted style, and has elbow-puff sleeves with turn-back cuffs.

For outdoor sports generally, this shirt-waist will be especially desirable. It will look well made of colored linen, matching the skirt worn with it, but having the chemisette and soft turn-down collar in white. Brown linen, the very fashionable gray linen, Alice blue, or reseda would all be effective.

How to do away with all fulness at the waist line—that is the question that is agitating every woman the land over who intends to wear the Princess gown this summer. This new demand of women has revolutionized the making of underwear. Undergarments are now designed and cut on entirely new lines, and are made to fit with the same exactness as a tailored gown.



**No. 772—Waistcoat Shirt-Waist**

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and one half yards of twenty-two-inch material, or two and one half yards of thirty-inch material, with one half yard of twenty-two-inch material for the chemisette

**No. 775—Misses' Double-Breasted Waist**

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, three and one half yards of twenty-two-inch material, or two and one half yards of thirty-inch material, with three fourths of a yard of twenty-two-inch material for collar and cuffs

**No. 776—Misses' Five-Gored Gathered Skirt**

Pattern cut for 12, 14 and 16 year sizes. Skirt cut in five gores, gathered at the belt. Quantity of material required for medium size, or 14 years, seven yards of twenty-two-inch material, or five yards of thirty-inch material

The Princess petticoat-drawers, which cling to the figure as-if molded to it, and yet give the desired fulness at the bottom, are among the underwear novelties of the summer. This garment is made with a plain, dart-fitted corset cover which buttons in the front. The drawers are joined to this corset cover at the waist with narrow embroidery beading. The darts and seams in the corset cover and the drawers match, giving the Princess effect. The drawers are open and are fitted with darts at the hips, while the leg portions are very full, to give the effect of a short petticoat.

### Hats

Of course, flowers are always used more or less on the summer hats, but this year they are seen in greater profusion than ever. Shaded roses are extremely fashionable, and American Beauty roses



**No. 696—Short-Sleeve Lingerie Waist**

Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one fourth yards of twenty-two-inch material, or three and one fourth yards of thirty-six-inch material



**No. 777—Child's Bathing-Suit**

Pattern cut for 4, 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, six yards of twenty-two-inch material, or four yards of thirty-six-inch material, with three fourths of a yard of twenty-two-inch material for collar and skirt trimming

are much worn. Lilacs, both in white and violet, are specially in favor; and pansies, violets and hyacinth blossoms trim many of the violet-tinted hats. Both pink roses and pink geraniums will be much worn all through the summer on the very fashionable gray hats, which need a bright color touch to make them becoming.



**No. 751—Princess Petticoat-Drawers**

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 38 inch bust, five and one fourth yards of twenty-two-inch material, or three and one half yards of thirty-six-inch material

### PATTERNS

To assist our readers and to simplify the art of dressmaking, we will furnish patterns of any of the designs illustrated on this page for ten cents each. Send money to Pattern Dept., The Crowell Publishing Company, 11 East 24th Street, New York, and be sure to mention the number and size of the pattern desired.

Our new summer catalogue of fashionable patterns, containing two hundred of the latest designs that will be appropriate for all occasions, is now ready, and will be sent free to any address upon request.



## Successful Women Farmers

FARMING would seem to be the last occupation a woman would choose; and yet there are many successful women farmers. Even the Western ranch is taken up by women. Out in Gunnison, Colorado, there is a fine big ranch of eight girls who have taken their father's badly mortgaged ranch and cleared off all its debts in three years. These girls are all between fifteen and twenty-five years of age. All are sweet, modest girls, and physically are fine specimens of womanhood. They think their work as good as play, and not one has ever been ill a day from it. In the winter four of them find employment in Denver, where they have a host of friends. The younger girls attend the Gunnison schools. Being all born and bred on a ranch, they knew fully what ranch work meant when they resolved to lift the debt. They knew that long dresses and low slippers were out of place in such work, so donning overalls and heavy brogans, for three years they have run the ranch entirely without assistance. They have punched cattle, broken bronchos, cut, stacked and baled hay, and done all the work incident to a ranch such as theirs. The family is French, and the conversation among themselves is carried on altogether in that language. They are a jolly crowd, and when haying-time comes they put on overalls and run the mower, the rake, the go-devil, and stacker, and take care of the hay crop from the seven-hundred-and-twenty-five-acre ranch. When it comes time to bale the hay for market, they are again on hand. Their brother Bob is their only help. Such pluck as theirs ought to win, and it will.

Arizona has a Chinese cattle queen, Miss Lee Kue. Her father, a very rich Chinese ranchman, died lately, leaving her property paying \$10,000 a year in live stock and farm vegetable products. Every detail of the ranch little Lee Kue understands better than any man.—Union Gospel News.

## The Danger in Mere "Brains"

MOST people believe a brainy man can accomplish anything he wishes. "That young man," they say, "is brilliant. He will make his mark in the world."

The power of sheer intellect is largely overestimated; nothing in the world is more futile than mere brains. How many of these precocious young men fulfil the early expectations of their friends? Very few. Endowed as they are by nature with a preponderant brilliancy, they generally tire quickly, having come to consider all things easy before their great genius. Accomplishment of things difficult to others has always required of them only a simple effort, and the result is that will-power has not been strengthened by intense and continued effort, so, when the great trial comes and the tremendous obstacle besets, they know not what to do. They see that mere effort, such as they usually make, will not suffice, so they say "impossible." Then the fellow who has had to work hard all his life, looks neither to the right hand nor the left, considers not the difficulty, but does the thing next to his hand, and lo! the impossible is done!

"He keeps his purpose," says Fichte, "and whatever he has resolved to do, that he does, were it only because he has resolved to do it." To do the next thing in the inevitable course of events, no matter what advantage might be temporarily gained by swerving from the pre-determined path, is to be strong; otherwise, be you brilliant or mediocre, you are weak. Many an ordinary man thus gathers great power. So did Columbus and Luther wield an influence above and beyond themselves.

Says Emerson in his essay on wealth: "Profligacy does not consist in spending years of time and chests of money, but in spending them off the line of your career. The crime which bankrupts men and states is job work—declining from your main design to serve a term here and there. Nothing is beneath you if it is in the direction of your life; nothing is great or desirable if it is off from that."—American Boy.

## Mutual Confidence in the Home

How many a mother, sorrowing over her child overtaken in some disgraceful act, exclaims, "If I'd only known Mary had ever spoken to that creature!" or "If Joe had only told me where he was going last night!"

Alas! Poor mother! But she forgets the evening, years ago, when her little child put a soft arm about her neck, and whispered, "Mamma, I want to tell you something the boys did to-day," or "Mamma, which do you think was right?"—and she pushed off that arm, and said, "Oh! don't bother me! It's too hot to talk."

Or, perhaps, upon the confession of some childish fault, she fell into a passion of stormy denunciation and punished



## Sunday Reading

the child severely, when a little gentle advice and warning would have corrected the error and kept open the door of her child's soul.

We forget that we as well as our children are the offspring of the All-Father; we exaggerate our parental authority, and minimize the fraternal relation, the companionship which ought to exist between parents and children. Through fear of punishment and adverse criticism, our children grow away from us—seek other confidants, evade our questions, learn to tell us lies—always the defense of a weak nature against oppression—and fall into irreparable evil.

We should respect a child's self-reserve just as we must abstain from discussing some things before little children; but we can do much to help them to grow in honesty and clean-mindedness by encouraging them to tell us everything which interests and puzzles them.

What, however, will be the influence of that mother whose children hear her deceive her husband; who sends the maid to the door to put off an unwelcome guest or a bill collector by saying that she is not at home; who writes a lying excuse for her child's absence from school?

We ourselves must be upright as well as amiable, truthful as well as tolerant, good as well as gentle, if we hope to make our children so.—G. E. Reilly in The Interior.

## Diligent in Business

YOU may settle down and take things easy if you desire, but there are golden possibilities lying before those who will apply themselves to the Lord's service.

Look up! Behold, the fields are white already unto the harvest. Souls are waiting to be fed, and other nations, like Wales, are waiting for the heralds of light that shall stir them from center to coast with the simple, powerful Word of God. And who are they that stir the nations? They are ones who diligently serve the Lord and are mighty in prayer and faith and sacrifice, and love and tears, yea, with a love for souls that exceeds all other desires. They, too, might settle down, but they choose rather to live earnestly while they can that they might see the lost of earth brought to God; and, living earnestly, God honors them with results.

The same opportunities are before us if we also choose our lot and life with him and follow him, even through the garden, where so few go.

The rapidly whitening harvest-fields are an earnest call for more earnest reapers, and glorious results are waiting for those who will live for them. It may not be easy to conquer the indifferent spirit around you, to live tearful while others live tearless, to pray much while others pray little. It would be easier to live tearless also and drift with the tide; but the tide does not bring us victory or souls. They come only as we breast the tide and live earnestly for them.

Enter ye then into the battle with a determination to live so that God may use you—an anointed, Spirit-filled herald of light, and souls will be yours for the labor. "I have chosen you, and ordained you, that ye should go and bring forth fruit, and that your fruit should remain."

"He that abideth in me, and I in him, the same bringeth forth much fruit." O ye reapers, sit no longer idle, indifferent, careless, for "the sun slowly pales from the far azure sky, and sinks in the fathomless west." What we do we must do quickly. Our days of reaping will soon be done, our golden opportunities gone. Let us then work with our might while it is called to-day.—Evangeline Hawkins, in Herald of Light.

## Cheer Up

Well!  
My friend  
What makes you sad,  
When all around are feeling glad?  
Cheer up a bit,  
And crack a smile;  
See you do it; 'tis worth the while.  
Then kindly greet  
Those whom you meet,  
Forget the troubles you have had  
And just be glad.

ALBERT E. VASSAR.

FILL the place where God has placed you. Show your fitness for it and your contentment in it. You might prefer a change, but God keeps you in it for some wise purpose, and if you make the best of it, he will be glorified and you will be blest.—The Presbyterian.

## Life's Mission

To live without a mission, like a ship upon the seas,  
Without chart or compass, and at random with the breeze,

Is a life that is hampered with no worthy end to gain,  
And may quite soon be stranded on the rocky shores of pain.

So man without a purpose or a plan to guide aright,  
May go stumbling through the world, on and on devoid of light;

Or like clock upon the mantel, without hands to point the way,  
With no legs to stand erect and no guide to time of day

He comes and goes and cares not what evils may betide him,

If paths of worldly pleasure can always stand beside him.

What use can such a creature be to cumber Mother Earth,

Without soul to comprehend what true life is really worth?

Yet though his soul is feeble, and his spirit vision dark,

There yet remains within him a submerged but vital spark,

And could that spark be kindled and roused into a flame

His manhood might be strengthened, and he with an honored name;

And though the soul be smothered, let the God within him rise,

And seek the pearly ladder that will reach to purer skies;

He's a subject for reform, if not yet beyond our care

Within good environment, in whose fruits he ought to share.

If such there be around us who yet fail to understand,

Let all the silent forces be brought forth at our command,

That those who lack clear foresight in what savors for their good,

May learn that all life's duties should be better understood,

And that the highest pleasure which can succor and endure,

Consists in dealing justly to make inward peace secure,

And doing unto others as we'd have them to us do.

With Golden Rule for action, which is always right and true,

For truth is amply able to give strength to inward light,

While faith and good example will help keep us in the right,

And the faith which is enduring, full of promise to the end,

Will through our earthly blessings with eternal goodness blend,

And love of God is proven by the sure seraphic plan,

In measures of devotion, as man loves his fellow-man.

Duty as a guiding star, should e'er be brought before us,

Outreaching in requirement all others that shine o'er us;

The ties of common kindred bind humankind as brothers,

And the favors we receive we should extend to others,

For frail man needs best wisdom to help guide his works and ways,

And this will aid his yearning in true peace to end his days.

These homilies are offered, in the aid of what we know,

With best of motives proffered that we all may wiser grow,

And if they shall chance to meet some worn traveler by the way,

Whose foresight is bewildered by having gone astray,

Then like prodigal of old, of whose case we often read,

If unto his Father's house he shall at once proceed,

He'll be welcomed by the ring, the best robe and fattened calf,

Like to parable there shown, with all planned on his behalf;

And when with this repentance the wanderer shall return,

To meet the Father's blessing where the fires of love still burn,

May the star of promise rise to redeem him from all sin,

In grand angelic brightness with his true heaven within.

WM. BURGESS.

## They Look at the Boy's Hands

THE boy in search of a job turned up at supper-time at his sister's house, looking rather disconsolate.

"I didn't get nothing to do," he said, shortly.

"I don't wonder if you used that kind of grammar," said his sister.

"That wasn't it; I had my company grammar on all right; 'twas something else, and I'll tell Jim about it after supper. You'd spring the 'I-told-you-so' game on me, and make me tired."

Jim was his brother-in-law, and had been a job-hunting boy himself not very many years before. He was beckoned into the sitting-room immediately after rising from the table, and once there the door was shut by his wife's youthful brother, who turned and said, "I went to fourteen places to-day, Jim, and was turned down at every shot. I've read about such things in the Sunday-school books and in the funny papers, but I thought it was all gab. The guys I applied to didn't ask me if I lived with my mother; they didn't ask me if I wrote a good hand; they didn't ask me if I knew the city, and they didn't ask me nothing at all that I expected them to ask me. The first thing four of them says was, 'Hold up your mits,' while the others

says, 'Please let us look at your hands.' There was one look and four of them says, 'Git,' and the rest says, politely, 'We don't think we require your services.'"

"What was the matter?" asked the sister's husband.

The boy held up the forefinger of his left hand, along the inner side of which a yellow stain showed as far as the second knuckle. "That," he said, simply.

"H'm," said the brother-in-law, "the boss in our shop won't allow cigarette-smoking, either; but I didn't know things had gone as far as this. Why don't you quit?"

"I have. I quit last night. One of the guys that said, 'Git,' called me back just as I got to the elevator, and says, 'What makes you smoke cigarettes?' 'I don't,' I says. 'There's some things worse than cigarette-smokin',' he says.

"I quit last night," I told him. Then he grinned a little, and said I might not be such a liar as he thought after all, but it was a fact that Chicago men had quit hiring cigarette kids. Then he says, 'You're sure you quit last night, are you? Well, you come back again in a week and show me your mit.'

"The stain 'll wear off by that time, Jim, and I kinder think that feller 'll give me a job."—Chicago Chronicle.

## No Railroad-Passes in France

WITH the pass-bribery nuisance France deals in summary fashion. Railroads have no chance to win the good will of French Deputies and Senators by surreptitious favors. Every French senator and deputy has by law an annual pass on every railroad. This the government compels the railroads to furnish. Then the government deducts for the pass ten francs a month from the pay of the senator or deputy. The railroads get nothing. That is the extent of that performance. The passes are provided to afford the senators and deputies opportunity to acquaint themselves with conditions in every part of the country.

The President of the Republic must be transported on public business at the expense of the railroads. That is the law, and the service entails no kind of obligation on the president's part. Even if the companies were to furnish him with a special train of beautiful cars, that would mean nothing, because they are obliged to transport him with their best devices anyway.—Everybody's Magazine.

## Success

Success! the El Dorado of our hopes!  
Achieved by him who liveth well and long;

Whose days are filled with laughter and with song;  
By him who best with baser passion copes.

Who loveth much, and him the children love;  
Who admiration gains and holds respect,

Both of fair minds, and men of intellect.  
Wise as a serpent, innocent as a dove.

He is the one who hath the world's acclaim!  
The man who fills his niche—performs his task;

Anticipates our wishes ere we ask—  
The glow of conscience warms his "Hall of Fame."

The world is much improved by his good life.

A perfect poem, or a rescued soul—  
The evolution of a thought—his goal!  
Superior far to riches gained by strife!

He never lacks the thrill which earth reveals;

The beauty of the flowers! or song of birds!

The babbling of the brook; or low of herds!

The whispering grain upon a thousand fields—

All these to him, a melody divine!

Transporting him beyond this mundane sphere;

Close to his beating heart he holds most dear

These rhapsodies, that cause his face to shine!

No pessimist is he—this ideal man—

He always seeks the best that in us lies;

And giving us his best accounts him wise!

Successful he who does the best he can.

A benediction shall his memory be!

Upon his head shall rest the the laurel wreath!

Hath plaudit of the world, above, beneath!

When his bright torch is quenched in Death's cold sea.

WARREN E. COMSTOCK.



## Arizona's Petrified Forest

BY CHARLES ALMA BYERS

(Photos by the Author)

**A** PETRIFIED forest covering nearly five thousand acres of desert land is one of the unique attractions of Arizona. The trees of this forest do not stand upright as in an ordinary living grove, but instead all lie prostrated upon the barren soil. The scene is one entirely of death and desolation. The area, with the exception of a few sentinel-like mesas, is almost as level as a floor, and as far as one can see in any direction only these prostrated trees of stone dot the expanse.

These petrifications are of all sizes, ranging from tiny slivers and segments to blocks and logs seven and eight feet in diameter and a hundred feet in length, and all are as hard as adamant. The processes through which they have passed



THE LONE SENTINEL—EAGLE'S NEST ON THE TOP

from sappy and sapless trees to logs of stone have changed their appearance but very little, and until a close examination is made one will almost doubt that they are more than slivers and logs of wood. In fact, one occasionally finds piles of chips that look so real as to lead him at first to think that a match would ignite them into flames.

Geologists tell us that this was probably at one time a large forest of stately pines. Later this forest was evidently prostrated by some unknown force, and the waters of an inland sea spread over the area. Next there appeared volcanoes that sent forth a spume of chemicals and covered the prostrated forest. Many years passed, and as the trees reposed under this chemical or volcanic blanket they were gradually transformed into stone. All that, of course, happened years ago, and since then, for



BRIDGE FORMED BY PETRIFIED LOG 111 FEET LONG—ARIZONA

unnumbered years, erosion has slowly resurrected the forest from its volcanic grave.

It seems to be the natural inclination of these petrifications to break up by transverse fractures into blocks, and frequently in the ends of such a group of blocks one will find nearly every color represented—such as red, black, yellow, blue, purple, green and lavender. An examination of these colored portions by a mineralogist

reveals the fact that chalcedony, topaz, onyx, agate, amethyst and several other valuable stones are represented.

One of the peculiarities of this forest of stone is the so-called natural bridge, which is formed by a petrified tree trunk spanning a small cañon-like ravine fifty feet wide. The log is one hundred and eleven feet long, and thus far time has permitted it to remain intact. A few years ago, however, it began to show signs of breaking crosswise, and the government has had two stone abutments built up under it, making it a bridge of three spans.

This forest lies in the eastern part of the territory, and is divided into two sections. One section, the most interesting, is located about nine miles from Adamana, and the other, the larger, is about fifteen miles from Holbrook—both small stations on the main line of the Santa Fe Railway.

Visitors to the Buffalo Exposition and the St. Louis World's Fair will remember having seen segments of petrified wood from the Arizona forest, but one cannot get even a fair idea of this natural wonder until he has really visited it.

## Queer Royal Courtship

**W**HEN Queen Wilhelmina was casting about for a consort among the eligible royalties of Europe she caused it to be known that only a prince who had a fair knowledge of Dutch would be honored with her hand. Prince Henry of Mecklenburg at once set to work to learn the language. It was not long before he felt able to meet Queen Wilhelmina, when, having already "taken a fancy to him," she seriously inquired what progress he had made in her language. "I am working very hard at it," he replied, and he drew from his pocket a dog-eared primer and handed it to the queen. She opened it and found scrawled all over the first blank page, "I love you!" in Dutch. From that moment the rest of the ambitious princes of Europe were out of the running.

## Six Mosquito Rules

**A**MOSQUITO never lays eggs except upon the surface of still water. This still water need not necessarily be a swamp, marsh, or a lake, or a pond of fresh water, but the smallest puddle of stagnant rain water. Even an old rusty tincupful of the filthiest water to be found on a dump heap will suffice, just so it is not disturbed for a period not exceeding twenty-five days. The mosquito egg undergoes the metamorphosis—larva, pupa or wriggler,

istence of a whole family of people may be made miserable by one female mosquito. The female mosquito is ready to lay eggs in less than one week after she issues from the shell or pupa.

In the state of New Jersey, which has been styled the mosquito's Arcadia, there are no less than thirty-three separate and distinct species.

Eminent physicians and scientists as-



A HUGE PETRIFIED TREE BROKEN UP INTO BLOCKS

sert that malarial diseases can be entirely eliminated by the extermination of the species *Anopheles*. It is gratifying that the work of extermination is well under way in many of our cities. Municipal mosquito extermination is progressing in Breslau, Germany, where efforts are being made to destroy with disinfectants before the approach of warm weather the mosquitoes that hibernate throughout the winter in damp cellars and other secluded dark holes and corners.

It is possible to rid the premises of mosquitoes if one will undertake the work systematically. The municipal authorities may accomplish wonders, but after all the burden of extermination rests with the individuals, with the housekeepers. Dr. Quitman Kohnke, President of the New Orleans Board of Health, has formulated the following "once a week," six simple rules for the extermination of the pest. It would be a move in the right direction for every housekeeper to post these rules conspicuously and to religiously apply them:

1. Once a week, pour into every water surface on your premises not removable by drainage or stocked with fish, or screened from mosquitoes, a quantity of kerosene equivalent to one ounce (two tablespoonfuls) for each fifteen square feet of water surface.
2. Once a week, pour into the privy vault five cents' worth of crude carbolic acid, or five cents worth of copperas dissolved in water, or five cents worth of kerosene.
3. Once a week, empty and refill all vessels containing water, upon which oil should not be placed, such as fire buckets provided in cotton presses in accordance with insurance requirements.
4. Once a week, pour kerosene or crude petroleum (about one pint) where it will flow through your drain gutter into the street gutter.
5. Once a week, report to the board of health the presence of any stagnant water in vacant lots or any condition in the neighborhood not easily remedied by yourself or neighbors, and keep on reporting once a week until you get the nuisance abated or a satisfactory explanation.
6. Once a week, read over these rules and see if you have not neglected something that should have been done, and persuade your neighbor to do as you do.—WILLIAM TALBOT CHILDS in "Good Housekeeping."

## An Echo of Indian Days

**M**R. WM. T. GRIER, of Creston, Montana, writes as follows to the editor of FARM AND FIRESIDE:

"In your issue of the FARM AND FIRE-

SIDE of December 1, 1905, on page 24, I note your cut and article on the arrow-head in the rib of a deer. I hand you under separate cover a photograph of one of the vertebrae of a human skeleton with an Indian arrow-head embedded in it. If, as you say, the bone of which you give a cut in the issue mentioned, is considered a great curiosity, it seems to me as if this would be a much more valuable one. It was found with the other bones of a human skeleton in the dooryard of one of my neighbors when the brush and small trees were being cleared away."

## First Woman to Secure Pilot's License

**M**RS. ROSA WATKINS, wife of Capt. George Watkins, of La Salle County, Ill., is the first woman to receive river pilot license in that state. The certificate qualifies her as master and first-class pilot on the Illinois River and its tributaries for

any boat having a capacity of one hundred tons.

Recently the government extended its jurisdiction over the waters of the rivers in Illinois and it became necessary for all captains and pilots to take the usual examination. When the inspectors examined the steamer "George Watkins," which is in the excursion business on the Illinois river, it developed that Captain Watkins' wife handled the boat as often as he did, as his duties were largely confined to that of engineer while his wife acted as captain and pilot. It then became necessary for Mrs. Watkins to undergo the examination, and she passed very successfully, her rating being higher than that of the majority of other candidates for license.

Mrs. Watkins is very enthusiastic over her duties and is entirely at home in the pilot-house. Her coolness at all times has been commented upon, and she has never



ARROW-HEAD IN HUMAN VERTEBRAE

been known to lose her presence of mind in a time of danger. She has proved a valuable helpmate for her husband, and her popularity with excursion parties has greatly contributed to the prosperity of the steamer. She is quite proud of the distinction of being the first regularly licensed woman pilot on the rivers of Illinois.

## Waited Forty Years for \$16.49

**E**LBRIDGE C. JORDAN, of Eau Claire, Wisconsin, who was in the Federal service on the United States gunboat "Pontiac" during the Civil War, received notice recently from the Treasury Department that he had been allowed \$16.49 as his share of prize money for the capture of a Confederate gunboat on the Savannah River in 1865.



## Prehistoric Ruins

THE University of Nebraska in connection with several American historical and archeological societies, is preparing to send out a scientific expedition to western Nebraska and eastern Wyoming for making examinations into the evidences of prehistoric men and works which abound all over a region several hundred miles square. Another object of the expedition will be to trace some relationship between the ancient inhabitants of that country and the modern Indians who have had possession of it ever since the days when Coronado and his Spaniards came up from Mexico on the search for the gold of the mythical "Seven Cities of Cibola."

North of the breaks of the Platte River, near the Nebraska-Wyoming state-line, there are four great rock quarries, known as "Spanish Diggings," where a prehistoric people quarried immense amounts of stone, for what use no one has ever discovered. The early settlers in that country thought this work was done by the Spaniards, and gave it the name of "Spanish Diggings," but Doctor Dorsey, curator of the Field Museum, Chicago, who visited the region several years ago, says the quarries were worked by a prehistoric people, and not by the Spaniards. Archeologists who have studied them declare that a thorough investigation will show the work to have been done by a semi-civilized tribe many centuries before the time of the American Indian. The work is of such stupendous nature that a practical miner and prospector who has spent years in the adjacent country has declared that it would require one thousand men with modern machinery, dynamite and other high explosives at least five years to accomplish what these aborigines did with wooden wedges and stone hammers.

Another point of interest which will be visited is the famous cave dwelling in Whalen Cañon, which will be thoroughly searched for new objects. In this cave have already been found numerous human bones and remains of animals. One human skull discovered here was covered entirely with limestone accretions, and was sent to the Smithsonian Institution. Experts here stated that at least one thousand years were required for the accretions to form.

Near the cave dwelling, but on top of a "hog-back" mountain, is an ancient rock fort which archeologists say was built at least three thousand years ago. Accretions to the depth of three feet on the great granite boulders which constitute the sides of the fort give the searchers an idea as to the age of the old fortifications. But the people who built the stone ramparts have left no traces behind them which have ever been found. The university expedition will delve into these accretions and accumulations and will see if any stone implements have been left behind and buried by time.

At a number of points on the mountain on which the fort stands are to be found ancient shrines erected to an unknown god.

An effort is also to be made to rediscover an ancient temple which cowboys report to be somewhere in the foothills of the Big Horn Mountains. Every once in a while some cowboy who has chased cattle far into the cañons at the base of the range comes back with a story of having seen a great stone building, with no roof, but almost perfect side walls, standing in a small "flat" at the head of a cañon. The cattlemen living in the surrounding country have never exactly located this "temple," as they have learned to call it, but they have been asked to keep a lookout for it in the spring round-ups, so that the expedition will have no trouble finding it. The great stone building is described in this manner by one of those who have seen it: "While looking at the surroundings I was surprised to note that the pile of what I supposed was erosive rock was in reality the ruins of a large stone building covering a full city block. I made an examination and saw that the building had been originally made of roughly squared rocks so large that at least four men would be required to lift one of them. On the inside of the dismantled walls was a sort of shrine or place where something like a pulpit had been erected. The stones were not smooth, but roughly hewn, as though done with the crudest of implements."

The expedition expects to spend at least two months in the field, and will leave Lincoln about July 1st. Several scientists from Eastern universities will accompany the Western members of the party.—New York Tribune.

## The Month of Battles

THOUGH June is frequently called the "Month of Roses," says the "Scrap Book," it might with just as much propriety be designated the "Month of Battles." In it have been fought some of the most memorable battles of history. Among



## In a Miscellaneous Way



these were Naseby, Bunker Hill, Marengo and Waterloo. In the following list will be found the names of some of the more important engagements that have been fought in this month:

1. Lord Howe defeated and almost destroyed the French fleet.... 1794
- Battle between the Shannon and the Chesapeake..... 1813
2. The Reign of Terror began.... 1793
3. Admiral Blake's decisive defeat of Van Tromp..... 1653
- Hobson sank the Merrimac in Santiago Harbor..... 1898
4. Kleber defeated the Austrians at Altenkirchen..... 1796
6. Capture of Memphis, Tenn..... 1862
7. Capture of Mamelon earthworks at Sebastopol, by the French.. 1855
- Siege of Jerusalem begun by the Crusaders..... 1099
10. Russia defeated Napoleon at Heilsberg..... 1807
- Russia captured Khiva from the Mohammedans..... 1873
14. Final defeat of Charles the First at Naseby, by Cromwell..... 1645
- Battle of Marengo..... 1800
- Napoleon's decisive overthrow of the Russians at Friedland.... 1807
- Napoleon's defeat of the Austrians at Raab..... 1809
16. Napoleon's defeat of Blücher at Ligny..... 1815
- Marshal Ney's indecisive attack on the English at Quatre Bras. 1815
17. The battle of Bunker Hill..... 1775
18. Frederick the Great's defeat by the Austrians at Kolin..... 1757
- War declared against England by the United States..... 1812
- The battle of Waterloo..... 1815
19. Sinking of the Alabama by the Kearsarge..... 1864
21. Encounter between the Leopard and the Chesapeake..... 1707
23. Lord Clive, with three thousand men, defeated sixty thousand at Plassey, making England mistress of India..... 1757
24. The Austrians defeated the Italians at Custoza..... 1866
25. Battle of the Little Big Horn—The Custer Massacre..... 1876
- Battle of Bannockburn..... 1314
26. First of the "Seven days before Richmond"..... 1862
- Invasion of Denmark by the Prussians..... 1864
28. Capture of Silistria by the Russians..... 1829
- Battle of Fort Moultrie, Charleston, S. C..... 1776
- Battle of Monmouth..... 1778
30. Battle of Petersburg..... 1864

## Highest Railroad Trestle in America

THE bridge over the Pecos River, Texas, which is here shown in a drawing from a picture in the "Technical World," is said to be the highest in North America. An idea of its great height can be gotten by comparing it with the train of cars going across. In all, there are twelve cars and two locomotives. If one dropped a stone from the center of the bridge to the water beneath, it would fall 321 feet. The bridge crosses the Pecos River in Texas, and, besides being of great height, is 2,180 feet in length. So far as known, there are but two railroad viaducts in the world which are higher. One is the new bridge over the Zambesi River, at Victoria Falls, in South Africa, about 420 feet high; and the other the Loa viaduct, in South America, which has a height of 336 feet.

## Raising Bugs for Profit

CALIFORNIA has long been noted for its great variety of plant life. The town of Fresno, county seat of Fresno County, has such a great diversity of vegetable life that it is said to have in it every known variety of tree. Fresno is also the center of the great raisin industry of America, which gives employment during the picking and packing season to thousands, including the wives and daughters of the ranchers. The annual product amounts to about \$2,500,000. "Leslie's Weekly" says that the bug-raising enterprise is a part of the fig-growing industry, which is reaching large proportions about Fresno. One rancher is now setting out in fig

trees alone, a single tract of 400 acres. Another orchard owner who has 40 acres in fig trees sells his product every year for from \$4,000 to \$5,000.

The introduction into this section of the country of the Smyrna fig has necessitated the propagation of the fig wasp, a tiny insect no larger than a gnat. The Smyrna fig is a hollow receptacle containing nothing but female flowers, which are inside of the fig, and unless these figs are fertilized by the little fig wasp, technically known as the "blastophaga grossorum," the figs never mature, but shrivel up and fall off the trees when about one third grown. The Capri, or wild fig, stands in the relation of the male to the Smyrna or female fig, which is the edible fruit. This Capri fig serves as the home for the little fig insect which is necessary for the perfection of the Smyrna fig. The pollination of the Smyrna fig takes place in the following manner: The Capri fig produces three or four crops a year, the only one of which is of any value to the Smyrna fig maturing in June. The little wasp passes out of the fig at this time, getting its body and wings covered with pollen from the male or staminate blossoms and enters the Smyrna fig, forcing its way through the almost closed orifice and fertilizes the female flowers. Having performed this office, it passes out of the fig and perishes. There is a nurseryman in Fresno who made a thorough and intelligent study of the fig industry at Smyrna, Asia Minor, and has imported and now raises both Capri and Smyrna fig trees. He sells young trees to the fruit raisers and provides with each lot sold a supply of the little wasps, safely housed in their native Capri fig homes. As the Smyrna is the finest fig known and in great demand in the United States—which has hitherto depended on importations from Turkey—the industry in Fresno County is rapidly growing, and the man who sells the bugs, the fertilizing wasps, is getting rich.

A smart young fellow called out to a farmer who was sowing seed in his field, "Well done, old fellow, you sow; I reap the fruits."

"Maybe you will," said the farmer, "for I'm sowing hemp."—Harper's Weekly.

## Bees Kill a Farmer

A DESPATCH from Carlisle, Pa., on the fifteenth of the past month told that Abraham Whistler, a prominent farmer of Hopewell Township, Cumberland County, was stung to death by bees.

He had purchased from a neighbor a hive of bees, and about daylight with his son, went to bring them home. They loaded the hive on a one-horse wagon and started homeward, the boy leading the horse.

When within a quarter of a mile of his house a jolt of the wagon knocked the top



BRIDGE OVER THE PECOS RIVER, TEXAS

off the hive and the angry bees swarmed out and attacked Mr. Whistler, stinging him so badly about the face and neck that he died on the road in about ten minutes.

The boy escaped with but a few stings. Mr. Whistler was fifty-seven years old, and is survived by his wife, three daughters and four sons.

## The Cheerful Captain

There was once a sea-captain, jolly and gay, Who'd dropped his old anchor in many a bay, And sailed his old craft over many a sea; No mortal was more philosophic than he. I've heard this old captain quite often declare, "'Tis useless, my mates, for to grumble and swear." So when the winds raged, he just whistled a tune,

Feeling sure things would calmer become pretty soon.

And when a dead calm made his vessel stand still, He whistled that same little tune with a will: He said he "calc'lated" he'd soon raise a breeze, And the wind, sure enough, soon made "landlubbers" sneeze!

Sometimes he grew homesick for wife, lad and lass; So he whistled that tune, to make time quickly pass. He whistled "in furren parts" when he felt sad; He whistled when home, because then he was glad.

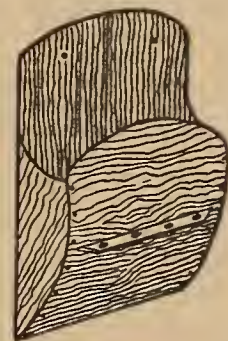
And as we all travel o'er life's troubled sea, Why won't this same rule work for you and for me? Let's whistle the storm-clouds all quickly away, And whistle in sunshine, because we feel gay.

—MARY F. K. HUTCHINSON.

## For Busy Hands

## NEWSPAPER AND PIPE RACK

THE accompanying figure illustrates a useful household article in the shape of a newspaper and pipe rack. It may be homemade, the construction being simple, as no rebating, etc., is necessary. If made of teak or mahogany, it will be rich looking. The leading dimensions, which could be modified to fit a corner or for any other reason, are as follows: Extreme length and width of back are one foot eight inches and



one foot one inch, respectively, by one half of an inch thick. The sides are five eighths of an inch thick, and are secured to the back with one-and-one-fourth-inch brass screws from the back. The back edges of the sides are one foot three and one half inches long, the front edges being one foot long, and the width at the widest place, which is one foot from the bottom, is five and one half inches. The front is of three-sixteenths-inch stuff, in two pieces, and is secured with brass rivets to the sides. The pipe-rack is one foot long, one and three fourths inches wide, and one half inch thick; it is secured to the front by two screws from the inside before it is nailed on. The whole may be polished or varnished.

## Sure Death to Mosquitoes

Each day we pick the papers up and read of some new way To squelch the bad mosquito in his irritating play; They tell us if we burn a lot of sulphur in the room 'Twill send the skeeter scurrying ahead to meet his doom— But if you do not care to breathe the sulphuretic mist You'll find it just as certain if you slap him on the wrist.

Also they've found a little worm—a parasitic pest That loves to hit the skeeter in the center of his vest And make him feel a bitter, green-cucumber sort of twinge, And twist his spinal column till it doubles like a hinge. If there's no paregoric, then the skeeter will be missed— But he is dead and done for if you slap him on the wrist.

'Tis said that giving him a bath in crude petroleum Will make him fold his vibrant wings and make his voice be dumb; Or if you spray him carefully with strong formaldehyde Into the dim hereafter he will most serenely glide; Some eucalyptus ointment, too, will cause him to desist— But you are sure to kill him if you slap him on the wrist.

The latest theory is that if you will find his key— The note upon the scale that he regards with lively glee, The zippy, zoomy, zizzly note he sings as swift he flies— And play it for him; when you do, the bold mosquito dies. But why prolong the agony? Why finish out the list? It's safe to bet he's dead if you have slapped him on the wrist.

—Chicago Tribune.



HIGHER education of girls and women is even now such a new thing under the sun in our country that there is still living the first woman who ever received a college diploma. Our forebears did not think that it was at all necessary for a woman to be as well educated as a man, and girls or "maydes" were not allowed to attend some of the first public schools in our country. As for a girl attending any of the first of our American colleges, a girl who would have suggested such a thing would no doubt have met with severe rebuke for such presumption. She would have been regarded as altogether too "forthputting," and in need of being put at once in her proper place, in which she would modestly acknowledge herself as being incapable of possessing or developing the mental attainments of men. To attain perfection in domestic duties was to be her ambition. It is an ambition not unworthy of any woman in that day or in our own day. But we have come to feel that a woman need not limit herself to attainment along this line, and we have come to know that the mental grasp of women is far greater than it was once thought to be. The woman's college has helped to reveal this fact. Some of our American young women have held their own in a really remarkable way with men in competitive examinations.

On July 18th, in the year 1840, the first diploma ever issued by a regularly chartered woman's college was given to Miss Catherine E. Brewer, of Macon, Georgia. The diploma was from the Georgia Female College. Miss Brewer a few years later married a Mr. Benson, and is still living at the age of eighty-three. The college from which she received her diploma was changed many years ago to the Wesleyan Female College. It might interest other women who possess college diplomas to know just what this first diploma ever given to a woman was like. We are able to give the exact wording of it.

"The President, as the representative of the Faculty of the Georgia Female College, gives this Testimonial that Miss Catherine E. Brewer, after having passed through a regular course of study in that Institution, embracing all the sciences which are usually taught in the Colleges of the United States, with such as appropriately belong to Female Education in its most ample range, was deemed worthy of the First Degree conferred by this Institution, and accordingly it was conferred upon her on July 18, 1840. In testimony of which the signatures of the President and Faculty and the Seal of the College are hereto affixed."

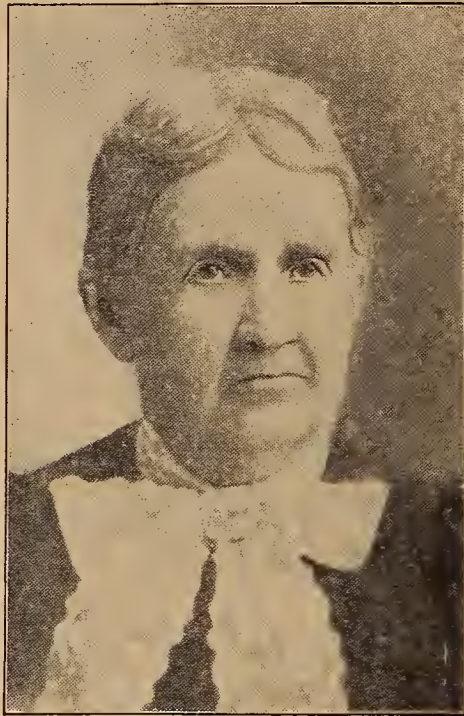
It is probable that the curriculum in the colleges of those days was much more limited than in the female college of our own day, and it would probably be interesting to know just what belonged to "Female Education in its most ample range."

In the latter part of the eighteenth century one of the New England towns, at its "town meeting," passed a vote that in future two of the eight hours of the

## The First College Diploma Given to a Woman

public schools be given over each day to the instruction of girls, "as they are a very tender and interesting branch of the community, but have been much neglected in the public schools of this town."

This "tender and interesting branch of the community" received a great deal of neglect in all the New England towns a century ago. It is a charge that no longer



MRS. CATHERINE E. BENSON

holds good in any part of our country, for the young of both sexes have equal rights in the splendid educational advantages given to our American youth.

MORRIS WADE.

### Signing the Treaty

THE accompanying picture shows the principal actors in the treaty by which the Shoshones and Arapahoes ceded to the United States 1,150,000 acres of land in the Shoshone Indian reservation, in Wyoming. The whole of the northern and eastern half of the big tract is thus restored to the public domain, and will be opened to settlement during the present year.

Looking at the photograph and noting the persons from right to left, they are as follows:

Rev. Coolidge, a full-blooded Indian, in a long overcoat.

Yellow Calf, chief of the Arapahoes, in the act of signing the treaty.

H. E. Wadsworth, United States Indian agent, in a light overcoat, sitting behind the table.

Major M'Laughlin, inspector, sitting next to Wadsworth.

Capt. H. G. Nickerson, allotting agent, and former Indian agent, with overcoat buttoned to neck.

H. A. Duncan, stenographer, sitting at left end of table.

Dick Washakie, son of the last chief of the Shoshones, standing with hat in hand.

George Terry, chief of the Shoshones, standing with paper in his hand. Terry made the principal speech in favor of the treaty, and was responsible for some changes. The treaty was made in April, 1904.

It is claimed that there will be but few more scenes like this. One by one the reservations have passed back to the possession of the paleface agriculturist and and stock herder.

The land will be opened subject to the homestead laws, but there are no free homesteads. All settlers will be required to pay \$1.50 an acre for all homesteads taken within two years of the opening. They come cheaper after that.

It is the Indians who get the money for these lands. There is such an area that the Indian does not make use of it in tilling the soil, so he is advised by the government to sell it, and the transaction takes place under the auspices of the government.

The making of entries of such land is attended by much less trouble than in former times, when there were rushes to grab up the best lands and quarter sections. Under the present mode homesteaders have a better chance to get what they want. They first register their names, and are given a card with a number. This card entitles the holder to go on the reservation and select the land he would like to have.

The duplicate cards of all of the persons who have registered are taken to a certain place, where two weeks later a drawing is had. Fifty cards are drawn from the shuffled quantity on the first day. The names of the persons holding cards of the numbers drawn are posted, and this bunch of homesteaders are allotted lands according to the order of the cards as drawn. The holder of the first card drawn is permitted to enter the land that he has examined and selected, and so on up to the fiftieth card of that first day's drawing: Fifty cards are drawn the next day, and fifty more quarter sections are entered, and so on until all of the cards have been drawn.

Each entryman must be prepared to plank down fifty cents an acre at the time he makes the entry, and twenty-five cents

an acre annually until all is paid for. This is the money that goes to the red man for the land that he gives up.

Nearly all of these lands will have to be irrigated, and it must be done by private enterprises under the laws of Wyoming. At this time two railroads are building into the reservation; the Northwestern already has built from Caspar to Lander, and has surveyed and is building north to Shoshone.

Nowadays we hear much about the dwindling away of public lands, as if there was little more to be had. There are very few more Indian reservations to be opened to settlement, but there is yet a vast area of unoccupied public lands subject to settlement and entry under the homestead laws. Such land is to be found in all of the states and territories west of the Mississippi River, except Iowa, Texas and Indian Territory. There is yet considerable public unoccupied land in Wisconsin, Michigan, Florida, Alabama and Mississippi. The area of vacant, unappropriated land, excluding Alaska, approximately, is 460,000,000 acres. So that Uncle Sam is not short of land yet, by a long ways. The government is still maintaining one hundred and five land offices in twenty-seven states and territories.

J. L. GRAFF.

### Off the Farm

YES, sir," said the Dakota man, as a crowd of agriculturists seated themselves around a little table, "yes, sir; we do things on rather a sizable scale. I've seen a man start out in the spring and plow a furrow until fall. Then he turned around and harvested back. We have some big farms up there, gentlemen. A friend of mine owned one on which he had to give a mortgage, and the mortgage was due on one end before they could get it recorded on the other. You see, it was laid off in counties."

There was a murmur of astonishment, and the Dakota man continued:

"I got a letter from a man who lives in my orchard just before I left home, and it had been three weeks getting to the dwelling-house, although it had traveled day and night."

"Distances are pretty wide up there, ain't they?" inquired one.

"Reasonably, reasonably," replied the Dakota man. "And the worst of it is, it breaks up families so. Two years ago I saw a whole family prostrated with grief. Women yelling, children howling, and dogs barking. One of my men had his camp truck packed on seven four-mule teams and he was going around bidding everybody good-by."

"Where was he going?" asked a Gravesend man.

"He was going half-way across the farm to feed the pigs," replied the man from Dakota.

"And did he ever get back to his family again?"

"It isn't time for him yet," replied the Dakota man.—Detroit Free Press.



YELLOW CALF SIGNING TREATY, SHOSHONE AGENCY, WYOMING



## Mark Twain on Hartford

THAT the humorist is not without humor even in his own city, the following stories of Mark Twain, which are printed in "Harper's Weekly," would tend to show:

"In his early Hartford days, Mark Twain took an active interest in baseball in common with most of his fellow-citizens. While attending an exciting match he lost a gold-headed umbrella, which he advertised in the local papers somewhat after this fashion:

"Lost—\$10 Reward. A gold-headed umbrella was lost by the undersigned on the grand stand at the baseball ground on Saturday. It was probably stolen from him while he was engaged in cheering the Hartforders for their victory over the Providence nine—presumably stolen by a red-headed, freckle-faced boy about twelve years old. For the body of the boy and the umbrella delivered at my house on Farmington Avenue, \$10 will be paid. For the body of the boy or the umbrella separately, \$5 for either. For the boy alive, nothing under any circumstances. This advertisement was signed with his full name and address.

"At a dinner given by some local mer-



## Wit and Humor



changed a few commonplaces, and then he said he did not believe I remembered him, and I had to confess I didn't, whereupon he said: 'My name is Grant.' General Grant! You can imagine how chagrined I felt on hearing the name, and I immediately made matters worse by sputtering out an apology and saying I was not accustomed to seeing him with his hat on, which was equivalent to admitting that I had only seen him when he came to the theater to see me! Nor did I improve matters by asking him, in my confusion, where he was living, which all the world except myself knew was in New York! The story is all true as far as that, but some wit has wonderfully improved it by adding that I turned to Grant a few sec-



Uncle—"You don't mean to tell the milkin' is all over so soon?" City Nephew (who was anxious to know how to milk)—"All over! Well, I should say it was. Why the cow kicked my bucket clear up into the old walnut tree."

cantile or business organization, Mr. Clemens responded to the toast of 'Hartford.' In his speech he glorified the city as the one place in the world which provided for every possible human need. He said that Hartford wrote life-insurance policies to protect men's lives, accident policies to protect their persons, and fire-insurance policies to protect their future. It made guns and pistols with which to kill men, but printed books to tell them how to live and Bibles to tell them how to die. In short, it supplied all their needs, not only here, but even hereafter."

## The Humor of Joseph Jefferson

Everybody knows that Joseph Jefferson loved a joke; he himself was the epitome of genial humor which was devoid of sting, yet poignant in its application. No book written about Jefferson could fail to emphasize this jovial side of his character, and Francis Wilson's new volume of "Reminiscences" is replete with anecdotes, from which the following are drawn. Among the numerous descriptions of Jefferson, none is more vivid than his own sketch of his profile as "a classical contour, neither Greek nor Roman, but of the pure nut-cracker type." The fact that Jefferson was inclined to be absent-minded used often to get him into embarrassing situations. He was once in Washington and was asked to take a drink with Senator Stephen A. Douglas.

On leaving the place, one of the party who accompanied Mr. Jefferson asked if he knew what he had done.

"I can't imagine—something dreadful, I'll be bound! What was it?"

"Why, Douglas paid for those drinks with a five-dollar piece, and you pocketed the change."

Jefferson always admired the little deviations given to several stories told about



THE INVESTIGATING PARROT AND THE PUP

himself. On one occasion, he went to a bank where he was unknown, and wanted to have a check cashed. The official could not do this, so the actor leaned up against the wall, exclaiming, "If my tog Schneider vas here he vould recognize me!" Instantly the people came to his rescue, for they all knew Rip. The incident never occurred, but Jefferson always beamed when he heard it. Then there was the tale about General Grant, which up to a certain point was true. The two met in the elevator of the Equitable Building in New York. Jefferson thus describes the incident:

"He greeted me by name, and we ex-

changed a few commonplaces, and then he said he did not believe I remembered him, and I had to confess I didn't, whereupon he said: 'My name is Grant.' General Grant! You can imagine how chagrined I felt on hearing the name, and I immediately made matters worse by sputtering out an apology and saying I was not accustomed to seeing him with his hat on, which was equivalent to admitting that I had only seen him when he came to the theater to see me! Nor did I improve matters by asking him, in my confusion, where he was living, which all the world except myself knew was in New York! The story is all true as far as that, but some wit has wonderfully improved it by adding that I turned to Grant a few sec-

onds later and said, 'By the way, General, where were you during the war?' Down in New Iberia, La., where Jefferson had one of his numerous houses, the actor and ex-President Cleveland were going over the plantation together and stopped before an old ante-bellum cabin. A smiling mammy invited them to enter. On the wall of the bare, dark room hung a lithograph picture of Cleveland.

"Mammy," said Jefferson, "whose picture is that?"

"I doan' know fo' sho'," was the reply, "but I think it's John de Baptis."

Jefferson never could countenance that definition of acting which confounded it with mimicry; to him imitators were never good actors.

He illustrated this with the anecdote of the elder Buckstone, the English comedian, listening impatiently to an imitation of himself. The whole table was in a roar of merriment; everyone was in ecstasy except Buckstone, who looked the picture of misery.

"Well, Mr. Buckstone," exclaimed a wag who was quietly enjoying the comedian's discomfiture, "don't you thing the imitation very fine?"

"It may be," he replied, "but I think I could do it better myself."

Often, Jefferson was addressed by those who knew him, yet whom he did not know. Wilson narrates:

"He gave us a humorous account of once meeting with the prize-fighter, 'Joe' Coburn, in a restaurant at St. Louis. Coburn swung over to the table where Jefferson was sitting, and said, 'I hear you and me's rivals dis week?' 'Yes,' answered Jefferson, 'but I am glad, Mr. Coburn, it is not in the same ring.'"

## A Mosquito Lullaby

(A Spring Song of the Jersey Coast)  
Hush, little skeeterbug, hush a-bye,  
Mother will rock him, don't you cry!  
I know you are hungry, my little sweet,  
With nothing to drink and so little to eat,  
The natives are tough and their blood is thin,  
But the city-folks soon will be rolling in—  
Hush, little buzzer, go bye.

Hush, little skeeterbug, hush a-bye,  
Think of the summertime, just you try!  
Chubby old ladies and thin old boys,  
Plump little children and, joy of joys,  
Fat little babies, all fresh and sweet  
And juicy and lovely for you to eat!  
Hush, little buzzer, go bye.

Hush, little skeeterbug, hush a-bye,  
Soon you'll be ready to buzz and fly;  
Daddy will sharpen your dear little bill,  
And Mother will teach you to bite, she will!  
Maybe they think we are slow and dumb,  
But we're not afraid of petroleum!  
Hush, little buzzer, go bye. —Puck.

## Vocabulary Up-to-Date

Some Leaves for the Dictionary of the Yellow Journalist.

Atoms—The place to which victims of an explosion are blown.

Banquet Table—Something that groans under a wealth of delicious viands, and from which reasonable delicacies are served.

Bride—An accomplished young woman who enters on the arm of her father, is a vision of loveliness, and receives many costly and useful presents.

Bridegroom—An unimportant person of the male persuasion.

Carnival—A celebration closing in a blaze of glory.

Cold Blood—Something in which murder is committed.

Fire—A process which causes buildings to go up in smoke or to be reduced to ashes, leaving only smouldering ruins.

Fugitive—A person who makes good his escape.

Hero—He who rescues a drowning person just as he is sinking for the third time.

Lie—That which is nailed.

Life—Something that is snuffed out.

Murder—A crime committed in cold blood; a dastardly deed.

Murderer—A human monster; a fiend in human shape; a fiend incarnate.

Only Ornament—The gift of the bridegroom.

Plot—A scheme which is nipped in the bud.

Political Meeting (our side's)—A gathering which packs the hall from pit to dome; an outpouring of the representative citizenship of the community.

Political Meeting (the other fellows')—A gathering composed of only twenty-four persons by actual count, fully one half of whom attended merely out of curiosity.

Pool of Blood—That in which a murdered person is found lying.

Prisoner—A person taken into custody and lodged in jail.

Society—A portion of the community which frequently is all agog, and often in a flutter of excitement.

Street-car—An instrument of torture in which human beings are packed like sardines in a box.

Toast-master—A man who makes a few well-chosen remarks, which often are appropriate to the occasion.

Victims (of a fatal accident)—Persons who are plunged, dashed or hurled into eternity.

Wreck—A catastrophe in which cars are reduced to junk, smashed into kindling-wood, or crushed like egg-shells.—New York Sun.

## The Exact Meaning

Borroughs—"Can you lend me a dollar, old man?"

Markley—"Don't talk that way. Surely you don't mean that?"

Borroughs—"Why don't I?"

Markley—"You mean 'will you lend me a dollar?'"—Philadelphia Press.

## April First

The old master knew all about "cribbing" as a school-boy and had not forgot-

case. He looked somewhat sheepish when he read the single word, "Fooled." But he was a shrewd man. He was not to be thrown off the scent so easily. He opened the back of the case. Then he was satisfied. There he read, "Fooled again."—Tatler.

## It Described His Cheese

The girl asked the polite salesman if he had good cheese.

"We have some lovely cheese," was the smiling answer.

"You should not say lovely cheese," she corrected.

"Why not? It is," he declared.

"Because"—with boarding-school dignity—"lovely should be used to qualify only something that is alive."

"Well," he retorted, "I'll stick to lovely."—New York Press.

## An Excellent Juror

The judge had his patience sorely tried by lawyers who wished to talk and by men who tried to evade jury service. Between hypothetical questions and excuses it seemed as if they never would get to the actual trial of the case. So when the puzzled little German who had been



She—"Mr. Brown, will you bring us in a cord of wood to put in our yard?"

Mr. Brown—"Certainly. But I thought you folks used coal altogether."

She—"We do, but our dog died yesterday and we want something to scare the tramps away."

accepted by both sides, jumped up, the judge was exasperated.

"Shudge!" cried the German.

"What is it?" demanded the judge.

"I t'ink I like to go home to my wife," said the German.

"You can't," retorted the judge. "Sit down."

"But, shudge," persisted the German.

"I don't t'nk I make a good shuror."

"You're the best in the box," said the judge. "Sit down."

"What box?" said the German.

"Jury box," said the judge.

"Oh, I thought it was a bad box that people gets in somedimes."

"No," said the judge, "the bad box is the prisoners' box."

"But, shudge," persisted the little German, "I don't speak good English."

"You don't have to speak any at all," said the judge. "Sit down."

The little German pointed at the lawyers to make his last desperate plea.

"Shudge," he said. "I can't make nod-dings of what these fellers say."

It was the judge's chance to get even for many annoyances.

"Neither can anyone else," he said. "Sit down."

With a sigh the little German sat down. —The Green Bag.

## Longworth and Longfellow

The "Saturday Evening Post" prints the following anecdote of the Ohio congressman:

"It was shortly before his marriage to Alice Roosevelt that Congressman Longworth was quite unexpectedly presented, at a large reception, to Samuel Longfellow, a brother of the poet. Now Longworth, be it remembered, is nothing if not a modest man, and he was just then in a somewhat rattled condition because of all the



He—"I'll show them fellers on top of this barn how to carry a hodful of mortar!"—(Swish)

ten the little tricks and dodges. One day during an examination the keen-eyed teacher observed one of his pupils take out his watch every minute or two. The pedagogue grew suspicious. Finally he strode slowly down the aisle and stopped in front of Willie's desk. "Let me see your watch," he commanded.

"Yes, sir," was the meek reply.

The teacher opened the front of the

notoriety showered upon him by a gratuitous daily press.

"He did not know what to say, and so he said only:

"Our names are almost similar, aren't they?"

"Mr. Longfellow smiled kindly.

"Yes," he quickly quoted; "'worth makes the man and the lack of it the fellow.'"



**Right to Deed on Fulfilment of Contract**

C. N. T., New York, writes: "M. sells by contract to B. a wood-lot, B. agreeing to pay in timber delivered at mill, payable in yearly payments. After one year B. informs M. that he will be unable to make first payment when due, and is allowed to make both payments the second year. During second year M. sells wood-lot to C., subject to contract given B. During first year of B's possession he allowed the lot to be returned for taxes, unknown to M., who has since paid for, and now holds tax sale deed. Soon after H. got his deed, he went to B. endeavoring to frighten him into giving up the land because of not fulfilling the contract the first year. Promising him, however, a deed of a certain valueless portion, if he would put timber to the mill to make three payments. B. being ignorant of all legal matters, as well as to how the deed had been given to H. verbally agreed to this arrangement, and fulfilled his part as agreed, H. failing to give deed as promised. Now H. holding the deed subject to contract, M. holding tax sale deed, can B. hold the land by fulfilling the contract, M. being willing to sign tax-sale deed to him?"

It seems to me that B's promise to H. would not be binding. First, because it was made without consideration, and secondly, because H. has failed to give the consideration he promised, and if B. fulfils the contract, I rather think that he is entitled to the property. The assignment to B. by M. of the tax-sale deed might not alone give B. a good title, but that, taken into consideration with the other matters would likely give him a good title. It might take a lawsuit to settle the matter.

**Right to Property**

B. F. I., New York, asks: "A. died leaving wife B., and their two children, also C., a daughter by a former wife. A. left property to B. during her life, then to be divided among the three children. B. is now living, but C. died, leaving two grandchildren, both of whom were given away in infancy. C. being of feeble mind was deserted by her husband who is also dead. C. died at the home of her half sister, after ten weeks' illness, having been cared for by her half-sister and B, the step-mother. Can C's children claim her share of the property left by A?"

It depends somewhat upon the nature of the property left to these three children, and as a general answer, I will say that upon the death of B. this claim against C. might be enforced against her interest, but can hardly be enforced during the lifetime of B.

**Dower Right of Husband**

I. C., Ohio, inquires: "A woman inherits a farm from her father, she marries, and lives on said farm, improves it, and raises a family. She dies and leaves no will. What portion does the husband get by law?"

If the wife left no children the husband would get a life estate in the property. If there are children or other descendants, the husband has merely a right to use one third of it during his lifetime.

**Right to Inheritance**

B. F. I., New York, asks: "D's wife left him, taking two children. She has been living with another man ever since, and has had the children for six years. Can she or the children claim any property that D. may acquire, or at his death any share that may be left to him by will? The will was made before D. married."

So long as the marital relations are not dissolved by divorce the marital rights in reference to property are still in the wife, although she be absent from the husband, and so would be the right of the children. The husband might will away his own property and that way defeat the right of the children, but could not defeat the rights of his wife.

**Controversy Over Spring**

W. A. C., Ohio, writes: "A has a warranty deed for a piece of land adjoining her other land, consisting of one acre, on which a spring is located and from which she and her ancestors have gotten their supply of water for house use and for stock for the past sixty years, and also had possession of it in 1897. A. dies leaving her estate to B., her only lawful heir and to her husband who has a life lease on her estate. In 1900, C. who owns land adjoining A's piece and spring sold his land to D., who proceeded to fence in A's piece and spring with his land, claiming it as his, but makes a gate for A's heir to pass through to and from the spring. Now, in 1906, D. builds another fence without gates between the spring and water trough and says A's heir can make steps over the fence to the spring. The land on which the spring is located is worth about \$5 an acre, as it is rough

## The Family Lawyer

Legal inquiries, of general interest only, from our regular subscribers will be answered in this department, each in its turn. On account of the large number of questions received, delay in giving printed answers is unavoidable. Querists desiring an immediate answer, or an answer to a question not of general interest, should remit \$1.00, addressed to "Law Department," this office, and get the answer by mail.

and stony. Now after D. has had possession of this land five years, who would be the lawful owner and would it pay to take the case to court, as the only thing of value is the spring of water?"

My opinion would be that A's heirs have a right to use this spring, and have a right also to get to it in the way that they have been accustomed to. It will probably cost you more to establish these rights than the property would be worth. You might if you could, take peaceable possession of the spring and the grounds surrounding it to the extent that your ancestors had.

**Collection of Wages by Relative**

C. L., Ohio, asks: "Can a girl collect wages for staying at home after she is of age, the rest of the children all being married, and the mother being dead, and no one else to run the house, there being no contract? The girl has kept house for her father nine years after the rest all left. The girl was married three years before her father died, and the father had to keep a hired girl ever since she was married. How long back can she collect pay, if any?"

I very seriously doubt whether the girl can collect anything at all unless she could prove an agreement on the part of her father to pay her wages, the presumption being that when the child works for her father that there is no charge to be made. If the claim is just, it should be presented to the administrator and such allowance should be made as is proper, as there may be a strong moral ground for payment of the claim.

**Collection of Note Against Man and Wife**

A. B. C., Massachusetts, writes: "A certain piece of real estate is in our mother's name. I, one of the children, hold a note for \$500, signed by the mother, now deceased, and also by the father. In case of settlement is that note an incumbrance of the estate, or is it my father's personal note. If the latter be true, in the event of his death before settlement is the estate responsible for it?"

This note is, no doubt, the joint note of the father and mother and can be collected in the estate of either of them, and therefore might be considered as an incumbrance on the estate of either.

**Inheritance**

R. E., Ohio, asks: "If a husband dies and leaves a wife, and two children, both of age, he leaving real estate and also personal property without a will, can his wife hold more than two thirds of the personal property? What is the law in Ohio?"

The wife would have a right to use one third of the real estate during her lifetime and would get one third of the personal property absolutely. In addition, at the husband's death she would get sufficient to give her one year's maintenance.

**Implied Contract for Boarding Aunt, etc.**

S. E., Pennsylvania, writes: "I have had living with me an aunt for about three years. Nothing has ever been mentioned about paying board. She is not helping with the work to meet any such obligation. Could I claim board in case of death, or at any time I see fit to make a claim?"

An aunt does not bear such relation to a nephew, that in order to recover for services rendered or board furnished there must be an express contract to that effect, and if the aunt boarded with the nephew the presumption would be that she should be made to pay for such board. This fact however, would be determined from all the circumstances in the case. There is no presumption that the nephew intended to board the aunt for nothing. It would be better, however, to have some understanding during her lifetime about this matter.

**Right to Lay Gas Main Through Private Property**

O. M. D., West Virginia, asks: "Has an oil or gas company the right to lay a pipe line through my land without my consent? The route was surveyed in November 1905, but there has been no work done yet. There has been nothing said to me about the right of way, and I made no objection to the survey which runs within a few feet of my dwelling-house,

which cost a considerable amount of money, and also passes near a barn and other farm buildings. It is said the line will be a large one to convey gas. Has a company the right to lay the line so near my buildings? If not, how must I proceed to keep them from doing so?"

The law generally allows public corporations to enter upon premises for the purpose of making surveys, etc., but the mere fact that surveys are made without objection does not give a corporation any right to take possession of the land for whatever purpose they may desire. Generally they are allowed to locate their line where they deem it the most suitable. However, in all instances the owner is entitled to full compensation for the land taken, and whatever damage may result to the residue of his property, and this question is determined by a jury, the corporation being obliged to pay all costs.

**Interest of Husband in Wife's Property**

E. M., New York, asks: "Can a man hold property belonging to his wife if she died without children? The property is land paid for with wife's money. Will a paper written and signed by the wife, without witnesses, giving him the property, be legal?"

The husband would have a courtesy in this property; that is, a right to use it his lifetime, provided the courtesy exists according to the old common law. A paper will not be a will unless it is witnessed and signed according to law, which in New York must be in the presence of two witnesses.

**Removal of Dead, etc.**

G. R. G., Ohio, asks: "Can the trustees after legally notifying delinquent lot owners, remove the bodies to the public burial grounds if said lot owners refuse to pay for the lots? We have a number of lots assigned to people who are able to pay for them and would not consent to be classed as paupers. Now would it be legal if, after due notice to said parties to settle, they fail to respond or make any effort to settle their debts, for the trustees to remove the remains from the lots thus occupied, and obtain possession of them?"

I can find no direct authority upon the query, and from the singular nature of the legal status of a dead body in law the solution is not without difficulty. Public policy and that due regard for the feelings of the living, generally prevent a disturbance of the body of a dead person after it has been placed in what at the time was considered its final resting place, and my opinion would be that the trustees having suffered those bodies to be buried upon these lots would not have authority to remove them, merely because the relatives or those to whom the lots have been assigned refuse to pay for them. The parties by burying their dead in these lots have impliedly agreed to pay for such privilege whatever is the price that has been put upon such lots and, this might be collected, the trustees might prevent burial by them in the future upon these same lands.

**Right in Real Estate**

J. K., Ohio, writes: "At the time I married my wife, neither she nor I had any property. I worked at day's wages, and we saved enough to buy a farm of fifty acres and pay cash for it. One child was born after we bought the farm. It lived two weeks, and then died. My wife died three days afterward. It was the only child we had. In the deed her name appears in this manner, 'Warranty deed from Roy — to John — and Mary —.' This Mary — is my legal wife. The point is, what are my rights in the said farm? One year afterward I married again. What rights has my second wife in the farm after my death? Can my first wife's brothers and sisters claim anything at my death? What would be the proper course for me to pursue to protect my second wife? My first wife's mother inherited some money from her father's estate. They bought a farm and it is in her husband's name. He died, leaving his wife and five children. At the death of my wife's mother, can I claim any part of my wife's share in this farm?"

Under the laws of Ohio, you would be the heir of your wife. This land having come by purchase and there being no children, you can dispose of it in any manner you see fit. There might be some

question about your second wife's share, if you should die, without you had in some way disposed of it. You would have no interest in your wife's mother's property, as your wife died before her mother, and consequently she never had any right or inheritance to any part of her mother's property. If the father died before your first wife, then you would have a dower interest in your wife's share.

**Chattel Mortgage Security**

G. M., Ohio, says: "A. bought a bicycle from B. for \$60. A. and C. gave two notes for the amount, due in three and six months, secured by a joint mortgage on said bicycle and on horse and buggy owned by C. The mortgage was recorded with T. S., clerk. B. never renewed it or demanded payment of A. or C., to C's knowledge. Is C. liable for full amount? Neither A. nor C. have property at the present time. Can B. have the mortgage renewed without notifying A. and C.? The mortgage was due in April, 1898. Had C. a right to dispose of the horse and buggy after the mortgage was due? Can B. collect debt? Must suit be brought against A. and C. in the county or township in which they live at present? Before the mortgage was due C. offered to turn horse and buggy over to B. when due. Does C's marriage since make any difference?"

The chattel mortgage not having been refilled within thirty days of the expiration of one year from the time of its first filing would be invalid as to third parties, but as between the parties themselves it would not be invalid merely because not refilled. C. would, of course, still be liable on the note. I do not think that C. had a right to dispose of the horse and buggy, even after the mortgage was due, because between the parties the mortgage was valid until paid or until the note was barred by the statute of limitations. Suit would not need to be brought in the township in which A. or C. at present lives. Whether or not the offering to turn over the horse and buggy to B. when the note was due would release C. is a question that I am not able to determine. It would certainly release C. from all criminal liability. The only effect of C's getting married since the note was given, would be that he is now entitled to hold certain property exempt.

**Line Fence**

J. K., Ohio, writes: "If a person owning an adjoining farm had no fences on his farm whatever, is he exempt from building or paying for his part of the line fence?"

A person is compelled under the laws of Ohio to put up one half of the fence on his boundary line, no matter whether his own lands are enclosed or not.

**Recording of Mortgage**

J. K., Ohio, writes: "Does it make any difference whether a mortgage is recorded or not?"

As between the original parties, a mortgage might be good if it was not recorded; but as to third persons, who might be interested or affected thereby, it would not be good unless put upon record.

**Minor Purchasing Land**

L. W. C., North Carolina, asks: "Can I buy land, not being of age, although my father has put me out to work for myself?"

Yes, you could buy land and have the title taken in your name. You could not sell it, or make a good deed of it, until after you were of age.

**Inheritance Between Brothers and Nieces, etc.**

R. G., New York, writes: "A. died, leaving real and personal property. There are brothers, nieces, and a grandniece, daughters of a deceased brother, the grandniece's mother being dead. Will they hold the deceased brother's share the same as the other brothers' share?"

As a general rule, where a parent is entitled to a certain portion of an estate by inheritance, such parent's child would succeed to the right of the parent.

**Exemptions, etc.**

M. S. D., Ohio, writes: "If I give my note for \$50 without security and am not able to pay it, can the parties to whom the note was given take my home from me, which is all of this world's goods that I possess, and it is mortgaged?"

Under the laws of Ohio, the head of the family is entitled to hold a homestead to the value of \$1,000, either from execution for debt or if the homestead be sold, the party is allowed to retain \$500 in money out of the proceeds of the sale after all legal liens thereon are paid.

*John W. R. K.*



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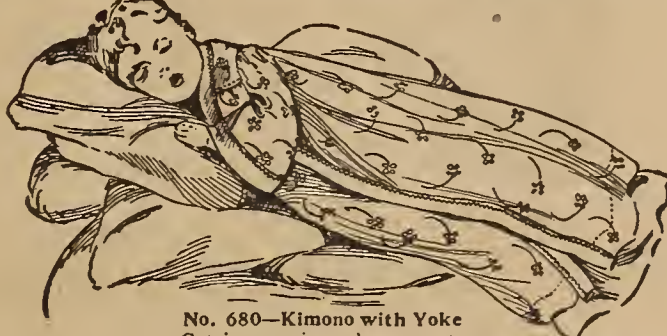


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## Farm Selections

It is estimated that the corn-stalks grown on a single acre will yield about one hundred and seventy gallons of commercial alcohol.

It is reported that thousands of sheep have recently died in the northwestern part of Sweetwater County, in Wyoming, as the result of eating black sage.

A company has been incorporated at Vinton, Iowa, for the purpose of making a fine quality of paper from the husks of sweet corn. Why not from the husks of field corn also?

The Bartow (Fla.) "Courier" announces the production of a new fruit. It was originated by the crossing of the bloom of the grapefruit (the Pomelo) and that of the tangerine.

During the week ending May 19th, one hundred and thirty-seven car-loads of strawberries were shipped north from Norfolk, Virginia. The average wholesale price was seven and one half cents per quart.

Hon. George W. Koiner, of Richmond, Virginia, who is the commissioner of agriculture, has in press a new "hand-book" giving the resources of the state in the various lines of agricultural and industrial development.

Laredo, Texas, is headquarters for the culture of the Bermuda onion. On May 10th, ten car-loads were shipped to northern markets. The best quality of seed is obtained direct from Teneriffe, the largest of the Canary islands.

From three thousand to five thousand acres of rice have been planted in Lonoke County, just east of Little Rock. This is the prairie region of Arkansas. In 1904 only five hundred acres were planted.

Representative S. F. Henry, of Rockville, Connecticut, says of the 1906 shade-grown tobacco crop, that ruling prices are now such that the U. S. Department's claim that a thousand dollars can be realized for each acre of the shade-grown, is likely to be realized this year.

Experiments made last year in Hidalgo County, near the mouth of the Rio Grande, in the extreme southwestern section of Texas, go to show that two excellent flax crops can be grown each year. The first seeding is in the fall. This crop matures early enough in the spring to permit the planting of a second crop.

Heretofore the main supply of nitrate of soda has been obtained from the Province Tarapaca, in Chile. Recent discoveries in adjoining provinces show that an amount of fully eighty million tons of caliche (the raw material from which nitrate of soda is produced) are now available. A shortage in the nitrate-of-soda supply is no longer to be feared. The recent discovery is therefore one of the greatest importance to agriculturists.

## Catalogues Received

Peter Henderson & Co., New York City. Handsomely illustrated pamphlet entitled "The Culture of Water-Lilies and Aquatic Plants."

De Laval Separator Co., New York City. Card list of a few of the many prominent users of the De Laval cream separators.

T. J. Calvert, Columbus, Ohio. Premium list and regulations of the Ohio State Fair and Industrial Exposition to be held in Columbus, September 3, 4, 5, 6, 7, 1906.

Leader Iron Works, Decatur, Ill. Illustrated catalogue of pneumatic water-works systems for country homes, farms, villages, etc.

International Stock Food Farm, Minneapolis, Minn. Large pamphlet giving photographic views of Mr. M. W. Savage's horses and farm, and a complete condensed history of each of his four famous champion stallions—Dan Patch, 1:55¼; Cresceus, 2:02¼; Directum, 2:05¼, and Arion, 2:07¼.

Barrett Manufacturing Co., New York City. "Skating on the Roof" and its application to the Barrett specification roof of coal-tar pitch and felt.

Chas. A. Cyphers, Buffalo, N. Y. Prospectus of the Model Poultry Company, a cooperative enterprise.

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